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ORIGINAL COMMUNICATIONS.

Pathological Cases. By CARTER P. JOHNSON, M. D., Professor of Anatomy and Physiology, in the Medical Department of Hampden Sidney College, Richmond, Virginia.

CASE 1.—*Extensive necrosis and reproduction of the bones of the Fore-arm and Hand.*—The specimen which is the subject of the following description, was presented by Dr. James A. Forbes, of Nelson, Virginia, from whom I obtained these facts. The patient was a negro man, about forty years of age, subject, for a number of years, to epileptiform convulsions. While under the effects of a convulsion, he fell into the fire and burned his right hand and arm and the right side of his face very severely. A high degree of inflammation in the arm and hand followed the accident, and was suffered to run on for the space of twelve months, during which time extensive sloughing of the parts took place, accompanied from time to time by discharge of bone. About a year after the accident, he was seen by Dr. Forbes, and found very much emaciated, and laboring under hectic fever. The arm was immediately amputated a short distance below the elbow, and in fifteen days the patient was walking about. His general health improved very much after the operation, and, singular to say, four years subsequently (the date of the Dr.'s letter to me) he had had *no return of the convulsive disease.*

A ligamentous preparation of the fore arm and hand presents the following appearances. The ulna, throughout its entire extent, is healthy, and does not seem to have participated in the disease. The radius is healthy to within two inches of its inferior extremity, where it becomes enlarged by the deposition of new bone. This new bone, characterized by a peculiar soft and spongy texture, is deposited at its superior limit upon the dorsal portion of the radius, upon and intimately united with the old bone; the amount of new bone increases as you pass down the radius, in the inferior half inch of which it entirely supplants the old bone, and forms the whole of the articulating portion of the carpal extremity of the radius.

In the carpus *no trace of the old bone is discoverable*, each of its eight bones being replaced by a corresponding perfectly formed new bone. In the metacarpus, on the palmar aspect, five newly formed metacarpal bones are seen, all perfect except the anterior portion of that of the thumb; on the dorsal aspect the remaining shells of the old bones of the thumb, index, and middle fingers are seen, being pushed away by the growth of new bone underneath them; the ring finger presents a small sequestrum just making its way through an ulceration in the otherwise perfect involucrum which surrounds it, and in the little finger every particle of the old bone has been replaced by new.

The phalanges of the thumb and index finger, and the second and third phalanges of the middle finger are wanting, (I presume they sloughed away during the progress of the disease. The first phalanges of the middle, the ring, and the little finger are entirely reformed, thin scales of the old bone lying upon their dorsal surfaces, and apparently in the act of being thrown off. The second and third phalanges of the ring finger and the second phalanx of the little finger have been entirely reproduced; the third phalanx of the little finger, which still retains its nail, does not seem to have been materially affected.

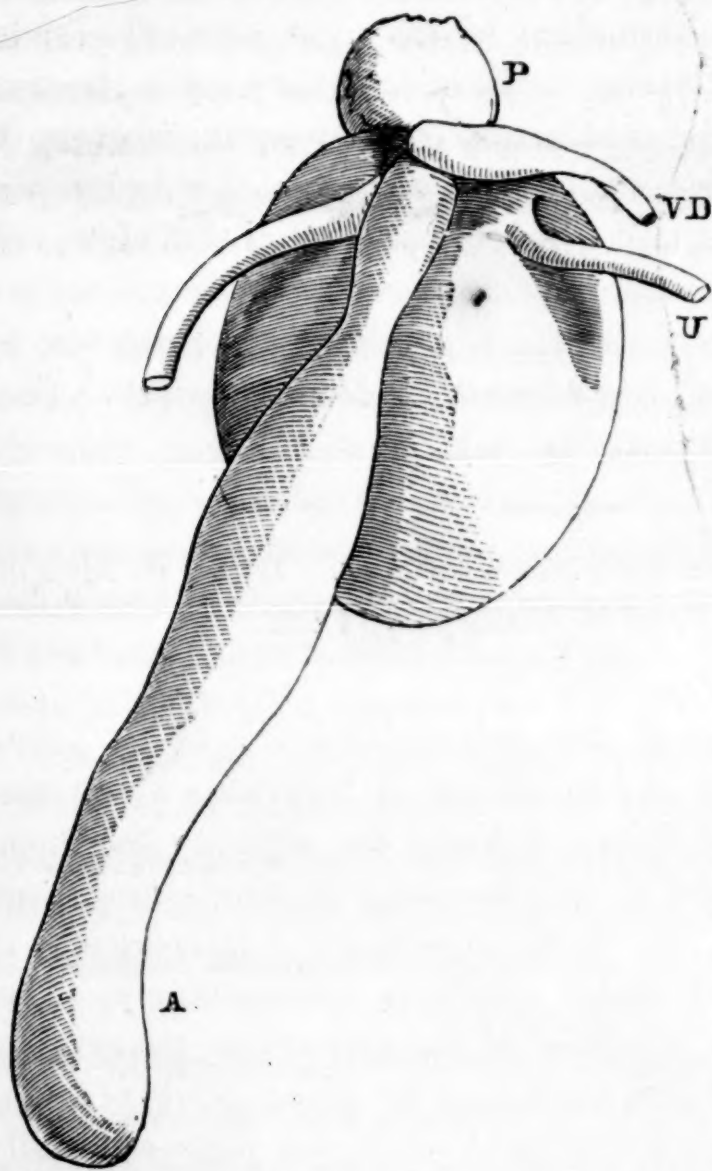
In this case we see another illustration of the wonderful reparative power of nature, and of the great results which she is capable of working out, even in a system debilitated by previous disease, when left entirely to her own resources.

Another interesting point connected with the case is the entire cessation of the epileptic attacks subsequent to the accession of the external injury. Did the irritation caused by this extensive disease, which must have been reflected to the nervous centres,

excite in the latter a new train of actions preponderating over or breaking up those which had previously given rise to periodical convulsions? And if there is any truth in this vague conjecture, might not the use of *counter irritation* more extensive, and longer continued than usual, merit a trial in these generally unmanageable affections?

CASE 2.—*Congenital malformation of the bladder.*—This specimen was presented to me by Dr. R. W. Haxall, of this city, and was obtained from a white male child who died at the age of about eight months, having suffered violent paroxysms of pain in the hypogastric and umbilical regions for several weeks previously.

The bladder is of the natural size and form, and viewed on its anterior aspect presents no unusual appearance. Viewed from behind, the following condition of things, accurately represented in the accompanying diagram, is observed.



The prostate occupies its usual position at the neck of the bladder. Above this, on the left, are seen the ureter and vas deferens for the left side. The vesicula seminalis for this side exists normally. On the right side is seen the right ureter entering the bladder in its usual manner, just below and a little to the left of which, occupying the usual position of the right vesicula seminalis, there emerges an *appendage* which passes along the posterior wall of the bladder from below upwards, and extends about two inches above its upper border. The general shape of

P. prostate; V. D. vas deferens; U. ureter; A. appendage—(natural size.)

this appendage is irregularly cylindrical; attaching itself by a small pedicle of about four lines in diameter to the bladder, it very soon enlarges to a diameter of about ten lines, which it maintains throughout its course.

On examining the interior of the bladder, this appendage, which is hollow throughout, is found to open by a contracted orifice just within and below the orifice of the right ureter. Its structure is the same as that of the bladder, of which it forms a simple diverticulum. When the body was opened it was found distended with urine.

Have the congenital absence of the right vesicula seminalis and the existence of this singular diverticulum any relation to each other, or are they to be regarded as simple coincidences? Knowing, as we now do, that all glands whose ducts open upon either of the great mucous surfaces, are originally developed as diverticula from these surfaces, it does not seem unreasonable to regard this appendage as a malformation of the right seminal vesicle, which, opening abnormally into the interior of the bladder, became filled with urine during the contractions of that organ, whereby its ordinary spiral folds were destroyed, or, more probably, were prevented from ever being formed. In confirmation of this view, it is well known that if the seminal vesicle is carefully dissected out and inflated so as to obliterate the folds, it presents an appearance by no means unlike that of the appendage here described. (See Quains' Plates, Viscera, Pl. 27, fig. 6.)

On the use of Strychnia in Intermittent Fever. By S. E. McKINLEY, M. D., of Williamsport, Tenn.

To the Editor of the Medical Examiner:

DEAR SIR:—The object of this communication is to lay before you the experience I have had in the use of Strychnia as a remedial agent in intermittent fever. I know the ordinary treatment consists in the employment of quinine—and in ninety-nine cases in a hundred it answers, but in the hundredth it fails—given in any form or quantity, or under whatever circumstances, either during, or in the absence of either of the paroxysms, pyrexial or congestive. Calomel or blue mass may be given until ptyalism is induced, and often by such treatment alone, but more especially when followed by quinine, the attacks are postponed, but only to

return in a very short time with redoubled violence. Found thus tedious in its progress, causing great emaciation and exhaustion, we ought not, without special reasons, to persist in measures calculated to lessen the powers of life, such as nauseants, bleeding, excessive sweating and repeated salivations, the ordinary treatment used in obstinate cases. And with equal propriety should we abstain from the use of that "renowned anti-periodic," when we know that it only aggravates and does not cure the disease. At the commencement it might, if properly governed, have done good and cured the patient; but now, from repeated attacks of the disease and corresponding repetition in the use of quinine, the nervous system has lost its susceptibility of being acted upon, and being brought back to a state of integrity by the use of that medicine. I have for a number of years been engaged in the active duties of my profession in many of the most malarious districts, both in the western and south-western states, and every opportunity has been afforded me of testing the various remedies for intermittent fever. But none have proved so potent in my hands as "strychnos nux vomica,"—none so cheap—none so easily administered—none that the patient will take more cheerfully—none, in fine, that acts with more certainty as a permanent cure, if persisted in for two or more weeks.

My mode of using it is to give one-sixteenth to one-eighth of a grain of strychnia every three hours, gradually augmenting the dose in proportion to the lost susceptibility. Thus we may gradually increase the quantity until, in some cases, one grain may be given three and four times per day, and without any toxic symptoms arising whatever. By pursuing the above plan, I have found my patients to recover in a very short time; and to lose the chill, in general, on the second day after commencing the medicine. I give it in pill of bread crumb. Hoping that others may meet with as satisfactory results from its use, as I have, and that it may be more used and less feared than it now is, I submit its results in my hands to the scrutiny of the profession, through the medium of the Medical Examiner.

S. E. McKINLEY.

P. S. Owing to the tedium of the process and the space it would require, I omit the illustration of the infinite variety of cases, with which my case-book is replete, wherein I have used the

strychnia with the most marked and happy effects. The greatest number of the cases referred to were persons who contracted the seeds of their intractable malady while on a visit to, or a residence in, the "Swamps of Indiana," "Blue Ponds of Arkansas," "Black Marshes of Mississippi" and West Tennessee, and low lands on the Tennessee river. Prior to the employment of strychnia, sulphate of quinine, in the greatest number of cases, conjoined with other acknowledged tonics, such as gentian, columba, quassia, camphor, piperine, iron, &c., (after the constitutional effects of mercurials,) had been fruitlessly resorted to. Owing, probably, to the ravages the constitutional powers of the system have sustained from repeated attacks of this "Western Pest," it would seem that the nervous system has contracted a species of paralysis, amenable only to such remedies as are addressed to the system where unequivocal paralysis exists. It is well known in the western country, in malarious districts, that horses become affected—are sluggish, loathe and refuse their food—become shaggy and lose their hair—when the owners of them will at once give what they call "ox-vomit," nux vomica, and simultaneously with its action the animal revives.

Surgical Cases. Reported by CHARLES SUTHERLAND, M. D., late Assistant to the Clinic of Jefferson Medical College.

The following have been selected from a number of cases which presented themselves at the Clinic of Jefferson Medical College.

A man, aged 45 years, presented himself last fall with a large tumor upon his right side. It had been growing for eight years past, and it now gave rise to a great deal of pain and inconvenience. It was perceptibly enlarging, and he resolved to have it removed. It extended from within a few inches of the inferior angle of the scapula to the floating ribs, and from within an inch of the vertebræ up to and under the axilla. The tumor was evidently under the latissimus dorsi muscle, and it felt hard, with soft spots here and there throughout its whole extent. Dr. Mütter was of the opinion that it was of the sero-cystic variety. On January the 16th he was brought before the class, and the operation performed by Dr. Mütter, assisted by Dr. Pancoast.

The first incision extended from the upper to the lower part of the tumor, in the median line, about eight inches in

length, and then from the middle of this incision back towards the spine, being about four inches in length. A T-shaped wound was thus made, the knife in this stage of the operation passing through skin and fascia. The operator then proceeded to dissect off the flaps, which was soon accomplished. One or two arteries were tied. The fibres of the muscle which covered the tumor were next cut through, the incision in this case being similar to the one first made. Several arteries were ligated. The tumor was torn out of its place in a gradual manner, occasionally using the knife where it was required to divide some adhesive bands. The object in thus removing it was to effect the laceration of the capillary vessels, and thus prevent secondary hemorrhage. After working above and below in the manner described, the pedicle of the tumor was reached. Near to its base, which extended a considerable distance up into the axilla, coursed the axillary artery, which could be seen distinctly pulsating. The subscapular artery which was enormously dilated, ran through the pedicle into the tumor, and most of the arteries which were tied came off from this large branch of the axillary. Around the pedicle was passed a strong double ligature, which being firmly tied, arrested all vascular communication. After this was accomplished the attachment was severed and the tumor removed. It weighed after its extirpation $10\frac{1}{2}$ pounds, and proved upon examination to be a most perfect specimen of the sero-cystic variety. There was some little oozing, but this ceased after tying several small arteries, and when the coating of plasma had fully appeared. Soon after, the flaps were brought together. It might be supposed that they would more than cover the wound, but this was not the case; they had sufficiently retracted to unite evenly when brought into apposition with each other. They were maintained in their proper position by sutures, adhesive straps, and a firm bandage, which was applied around the chest. The patient was immediately put to bed. A few hours subsequently some oozing came on, consequent upon reaction; towards night it was completely arrested. A teaspoonful of Liq. Morph. Sulphat. was given to him every hour or so. His sleep the first night was restless and disturbed: he complained of pain in his right shoulder, which also extended down his arm. The day after he was more comfortable; pain not so severe. A light diet was ordered. Remained in this condition for several days. On the

fifth day after the operation the dressings were removed. The transverse cut, together with the upper and lower part of the long incision, had all united, save where they met in the centre. Here suppuration was going on to a slight extent, partly owing to the ligatures which came out at this place. The part was again dressed, and a flaxseed poultice applied. It was afterwards found necessary to dress the wound twice a day. Under this local treatment, combined with a tonic regimen, the man daily improved, and was able a week after the operation to go about his room, and a week from that period he walked into the college and exhibited himself to the class. Soon after all the ligatures came away, the suppurating portion healed by granulations from the bottom, hastened by a stimulating ointment; the patient's health greatly improved and finally during the early part of March he was discharged cured.

The following is a brief account of a case of mortification attributable to severe and continued cold. The sufferer was a German lad, aged about twelve years, who worked upon a farm in the lower part of the State of New Jersey. One day last winter, for some slight dereliction of duty, he was severely chastised by his master, and on the following was confined in a barn upon the place, where he was forced to remain all night, which was one of the coldest of the season. His clothing was scanty, and, as might be supposed, he suffered extremely from the effects of the cold. On the following morning he was found unable to stand erect, there being total loss of sensation and motion in his feet. This was followed by an active throbbing pain, redness and swelling. Effusion occurred to a great extent in the cellular tissue. After this followed mortification. Both feet appeared to be dead, the right foot seemed the worst of the two. During this time he was judiciously treated by a physician residing in the neighborhood, but all his efforts proved unavailing, and the lad was sent to this city for the purpose of having his feet amputated. When he arrived at the hospital of the Jefferson Clinic, (on the 11th Feb.) he had upon him only a shirt, a thin pair of pants, and a vest, and was covered by a small blanket. The patient was depressed in spirits, complained of pain in several parts of his body, and also of cold.

On examining the feet, the entire sole and dorsum of one (the

right foot) was found to be completely mortified; the sole of the other was sphacelated nearly throughout the extent of its surface, and on its front as far as the tarso-metatarsal joint. A line of healthy granulations divided the living from the dead parts in both feet, better marked however in the left one. The sloughs were of a dark ash color and intolerably offensive. The boy was put to bed, warm clothing placed on and around him, he partook of some broth which revived him somewhat, at night a purgative was administered, and the feet enveloped in large poultices composed of carrots and powdered charcoal.

On the 12th, Did not sleep much during the night, bowels opened, feet again dressed with same applications. Dr. Pancoast now saw the case for the first time.

13th. After consultation it was resolved to amputate the right foot, and leave the left one, in which the dead mass showed a disposition to fall off, in which case, if it did, the tarsal bones would remain un-involved. Accordingly on the same day the right foot was removed by amputating above the ankle in the lower third of the leg. Dr. Pancoast performed the flap operation and obtained a capital stump.

14th. Patient very comfortable; recovered from effect of the operation admirably; the slough of the remaining foot ready to fall off; seems to adhere by means of two metatarsal bones.

17th. The dead mass came away with the dressing; two metatarsal bones of second and third toes alone remained. Dressing changed, flaxseed now used.

18th. Exhibited to the class, stump dressed first time before them. It had united by the first intention. Dr. Pancoast intended to remove the projecting bones of the left foot, but the boy, from some reason or other, just before he was brought to the college, wrenched the bones out their places. Some diseased portions of bone were removed by the bone forceps. From that time forward, cicatrization proceeded rapidly in this foot. The ligatures came away soon after.

22d. Able to walk about the room by means of a crutch.

March 1. Both stumps entirely healed. By means of an artificial foot and ankle, and the support that he will obtain from the tarsal bones, the boy will be enabled to walk tolerably well. In a few days subsequently he was discharged cured. He is now learning the trade of a tailor.

A colored lad, æt. 15 years, had been laboring for some time under white swelling of the knee-joint as a consequence of improper treatment. Great contraction of the tendons of the hamstring muscles ensued. The limb was flexed at nearly a right angle, and while in this position permanent ankylosis of the joint was the result. The limb consequently was rendered useless, and after consultation it was determined to remove it by amputating through the thigh. On the afternoon previous to the day fixed upon for the operation, the patient incautiously stepping from his bed, fractured the shaft of the femur of the diseased side. The effect of this was to prostrate him severely. He was brought to the college, and primary amputation would have been performed, had sufficient reaction occurred. On the subsequent day he had reacted so slightly as not to warrant a removal of the limb. Diffusive stimuli were freely used, and it was not until after persisting in their use for several days, that the patient's system was brought up to the point desired. The fracture, however, was set—four short splints applied around the thigh and the limb rested upon an inclined plane of pillows. The boy was brought into the college upon the next clinic day. Every thing was favorable, and the limb was removed by Dr. Mütter. A question arose at the time, as to the propriety of amputating through the seat of fracture or above it. The first plan was preferred; the callus being soft and yielding, there would be no difficulty in passing through it, and would save the necessity of sawing the bone. If any spicula of bone existed, they would be removed by means of the bone nippers. The flap operation was performed. The ends of the bone were found surrounded by a soft provisional callus; a fine stump was obtained after ligating the blood vessels, and waiting for the formation of the coat of the plasma. The flaps were brought together, united according to the usual mode, and the cold water dressing applied. The patient was put to bed, and no secondary hæmorrhage followed. Suffice it to say, the subsequent treatment was upon general principles, the flaps united by the first intention, and in less than three weeks the boy was discharged cured.

A large fatty tumor was removed, last February, from the thigh of a patient, by Dr. Pancoast. It had been slow, but progressive in its growth, and was situated on the inside of the left

thigh, about five or six inches from the pubis. It was a lobulated, softish, and painless tumor, feeling like a mass of fat. It was in length some seven or eight inches; and in width five inches, save at its pedicle, where, it was not more than two inches. The patient, a man, was placed under the influence of ether. A straight incision was made, extending from the upper to the lower part of the tumour; passing through the skin, and the cyst of cellular tissue, which surrounded it. After which it was rapidly removed; principally, by tearing its cellular connections. The tumor consisted of lobulated masses of fat, and possessed little vascularity; no ligature was required. The fatty mass was removed completely; only a solitary lobule was broken, which was taken away entirely. The tumor, if it had been allowed to remain, for a longer time than it did, might have taken upon itself a malignant character. This was partly shown, by examining one of its smallest lobules, which was already undergoing an unfavorable change in its condition. The part was treated as an incised wound, adhesive plasters maintained the parts in situ, and a spica bandage, kept all snug. In less than two weeks from that time the patient was well.

Observations on Endo-Cardial Coagula. By MARCUS DANA, M. D.,
of Seneca county, Ohio.

The heart-clot, as cause of sudden death, has been almost entirely overlooked, and is probably of much more frequent occurrence than many of the Medical profession suppose.

Formerly, in the course of autopsies of persons who died suddenly, if either ventricle of the heart was found occupied by a recent coagulum, it was, generally, supposed to have been formed after the death of the individual.

The white clot, which has been noticed from time to time, was considered as a polypoid concretion, and was supposed to originate in a morbid condition of the heart itself; though in some French reports which I have seen recently there are some intimations of its true character.

A monograph was offered at the Concours for the chair *Pathologie Interne* at the Faculty of Paris, when MM. Piorry, Broussais, Dubois, and Gibert were candidates. M. Piorry was

elected. The subject was, "Changes of the Blood in Disease," and some observations were made which have a bearing upon the subject under consideration, showing, however, that it was quite imperfectly understood at the time when those reports were made.

The polypiform concretions of the heart admitted by Malpighi, (oper. omn. 1666, de polypo cordis) and by many later writers, especially the philosopher and skilful practitioner Fr. Hoffmann, (Med. ration. Systemat. tom. 4, p. 3, 1738, Cap. 1, De Palpitatione Cordis,) and by the celebrated Vanswieten, (Comment. in Aphor. tom. 3, in 4to. 1758, §1010,) who ascribed to them the symptoms of grave organic lesions of the heart, were disputed by Morgagni, Senac, Pasta. Epist. de Cordis polypo in dubium revocat. Bergame 1739, and Lieutaud. Corvisart and Laennec hardly admitted their formation *during life*, except in some rare cases, and a *short time before death*. Recent facts have demonstrated that such concretions may exist during life.

M. Ferris at one of the sittings of the Academy of Medicine, (1828) reported that in a venesection, he had drawn from the vein of an arm, which became suddenly swollen and of a livid or blue color, a coagulum of considerable length. M. Velpeau exhibited at the same time to the same audience a vena cava filled by a central non-adherent coagulum, which had been arrested by the emulgent veins, and exhibited in some places a degeneration like medullary matter.

Bouillaud (Traité des Maladies du cœur) offers among other remarkable examples the curious fact of a heart, the right auricle of which was *nearly filled* with a *soft glutinous coagulum*, containing in its centre vesicles filled with a semi-concrete fluid, traversed by an infinite number of bright and dark red vessels.

M. Blaud de Beaucaire in a memoir in the 4th vol. 1833 of the "Révue Médicale," has collected a great number of facts derived from various authors and from his own practice, which go to establish the existence of these polypiform concretions of the heart. According to him many cases of *sudden* dyspnœa, deranged circulation, asthmatic affections, and palpitation of the heart, *appearing suddenly* and inexplicably, depend on such concretions *during life*.

The principal causes to which modern writers have attributed the formation of these clots, are the stasis of the blood during syncope,

or organic lesions of the heart, or inflammation of its membranes. Among the late writers on this subject, (who are few) Prof. Meigs has contributed largely, and I believe is the first to call the attention of the profession in the United States to this subject, and I am not aware that any author on either side of the Atlantic has so clearly pointed out its true pathological character. He has established the fact that this clot can form in a moment during syncope under certain conditions of the system arising from great loss of blood, and that such an accident may cause death instantaneously if the clot is large, filling the pulmonic side of the heart. Or if partial, the action of the heart upon recovery from the syncope may press out the red corpuscles after a time, leaving the fibrinous portion retained within the cavity of the heart, constituting the *white clot*. In this case the individual may linger in a miserable existence for days, months, or years. On this particular point, he has given his views on sundry occasions before his Class in Jefferson Medical College, (which views he has entertained for many years) and also in an article which appeared in the March number of the "Medical Examiner," for 1849. To that interesting article the reader is referred particularly for the post mortem appearances there reported, as they go to establish the position he has taken.

This throws a flood of light upon the cause of many of those sudden deaths which every practitioner of experience must have observed to take place during or soon after syncope, from great loss of blood, particularly connected with parturition.

It is now admitted to be a fact, that the last portions of blood effused in an animal slowly bleeding to death, will coagulate much sooner than the first portions extravasated. The tendency to coagulation WITHIN the vessels, it will be inferred, will then be in a ratio to the loss of this vital fluid. What gives it this tendency in proportion to its exhaustion is not exactly known. The coagulation of the last portions mentioned, will take place much more quickly than the first, but the clot will be less firm. The coagulability at the natural temperature of the blood is due to the fibrin it contains. But the question that here presents itself is, what produces the TENDENCY to such a sudden coagulation? Carpenter says that "simple arrestment of nervous influence favors the coagulation of blood within the vessels; clots being formed a few minutes after the brain and spinal marrow have been broken down."

Is it not probable that the temporary paralysis of the small branches of the pneumogastric and sympathetic nerves (which are distributed to the inter-cellular passages and air cells of the lungs during syncope,) may have the principal agency in this phenomenon?" Thus the flow of blood through the lungs being arrested, the pulmonary artery is immediately distended with blood, and can receive no more from the heart. The vena cava continues pouring blood into the right auricle, and at this moment, by slowly distending it, the blood is converted into a clot.

"If a clot be formed in the right auricle, it will also be found in the iter ad ventriculum dextrum, filling up the cone of the tricuspid valve, and the nucleus of it will cause the coagulum to extend into the cavity of the right ventricle and pass to a greater or less distance along the tractus of the pulmonary artery. If the whole pulmonic side of the heart is occupied in this way, the death of the individual would be instantaneous."—(*Prof. Meigs.*) It will be seen that the first link in this chain of morbid phenomena is encephalic anæmia. It therefore follows that if this paralysis, dependent on anæmia of the encephalon, should in most cases be temporary, reaction would take place upon the application of proper means to restore the circulation to the brain, were it not for the mechanical interference with the heart's action; permanent asphyxia taking place, which might under other circumstances have been of a temporary character.

That coagulation does take place under these circumstances, is sufficiently proved by the white clot which is seen on examination of persons who have died under symptoms arising from a sudden, though not complete, interference with the due arterialization of blood, which in this, as well as other forms of asphyxia, is the immediate or proximate cause of death. And yet a sufficient amount of oxygen has in many such cases been furnished to support the system for an indefinite period of time, depending on the extent of coagulation.

Inferior animals undoubtedly would be found to perish in the same way, if it could be shown that great bodily exhaustion is productive of a condition of the nervous and vascular system similar to that developed in man. It is no uncommon circumstance to see that noble animal, the horse, (which a moment before, to all appearance, was in good health, excepting from exhaustion from severe muscular exercise,) fall and expire in a few moments, or partially

recover and linger for some time, but never afterwards to be fit for service. He is said then to be "overheated" or "broken-winded." The case of my own horse, given hereafter, is supposed to be appropriate to the present question. It may go for what it is worth, to show that great bodily fatigue may produce the clot in question.

I will first proceed to describe a few cases of heart clot, as I am at present convinced they were, though at the time of occurrence of the first two mentioned, the cause was veiled in mystery, so far as my own knowledge went.

In the Fall of 1838 I was called to attend Mr. H., about 30 years of age, of good constitution, but who had been attacked some two or three weeks previously with nasal hæmorrhage, which recurring daily, had reduced him very much, so that he was compelled from weakness to keep the recumbent position. The hæmorrhage was produced by lifting heavy weights, producing determination to the head. I encountered much difficulty in arresting the epistaxis, but in a few days it ceased. He continued some days in a very debilitated state, and at length began slowly to convalesce. During this time his pulse was about 60 to 65 and regular, with respirations at 16—appetite good, bowels regular. I could discover no signs of organic or functional disorder about him.

In about a week from the cessation of the hæmorrhage he rose up for the first time, in the act of taking nourishment. Deliquium ensued immediately. He was replaced in the horizontal position, and partially recovered. At this time I was sent for, as he continued in great distress. I arrived in an hour and a half from the time of the fainting fit, but he had expired only a few moments before my arrival.

From his wife, a very intelligent woman, one who had had much experience as a nurse, I obtained the following history of the last symptoms of the man's case: After the fainting as above described, his respiration became laborious, with great heaving of the chest, and distress there. The pulse, which before he was raised was about 65, now became about 160, or, as she said, as fast as she could count. (She had been instructed to examine his pulse from time to time whilst the case was in my charge.) Coldness of the extremities; and great anxiety of countenance were noticed. These symptoms becoming more and more aggravated, he at length expired, as if by suffocation, accompanied by slight convulsive struggles, retaining his mental faculties till a short time before

death. There was no blueness about the face, or turgidity of the vessels of the neck.

In August, 1840, I was called to attend Mrs. P. in her second accouchment, accompanying which no untoward circumstance occurred, save rather profuse hemorrhage in consequence of a too adherent placenta. She lost a considerable quantity of blood before the cause could be obviated, and had a fit of syncope. Reaction soon took place, the womb contracting to its normal size after labor, and becoming sufficiently firm, and the patient cheerful. I now considered her safe. The night being well spent, and my own residence some eight miles distant, I concluded to tarry till morning, and retired, charging my patient to keep herself perfectly still, as possibly a renewal of flooding might ensue. About an hour after this she insisted on getting up, in obedience to calls produced by some kind of purgative which she had taken in the early period of labor.

The ladies present tried in vain to persuade her to abide by my injunctions, and endeavor to manage without rising. She replied that "the Doctor is asleep and will not find it out," and succeeded in getting out of bed. Syncope took place immediately. The "Doctor" was aroused from his repose to witness one of the most appalling spectacles that can be imagined—the sudden and unexpected death of his patient. There were a few struggles, apparently to get breath; small vibrating or fluttering pulse, and cold extremities. She lived but a few minutes. In this case there had been but little hemorrhage from the time of the complete extraction of the placenta, and the womb was contracted to the normal size.

I then became convinced that there was great danger in suddenly changing the position of persons who were reduced by hæmorrhage, but what that danger really consisted in, was not easily defined. I now believe that this poor woman might have been saved by a simple anodyne injection, given immediately after delivery, to obviate the necessity of rising so soon.

Not having permission to examine the bodies of these persons, in consequence of superstitious prepossessions too prevalent in the country against disturbing the dead for the good of the living, I could only say, that they were cases of fatal syncope at the time of their occurrence.

In June, 1848, I attended Mrs. C. in her sixth confinement; she was a woman of good constitution, about 32 years of age, and had a good easy labor, but very profuse hemorrhage came on without any apparent cause, which continued rather profuse for several days. She became very much reduced. At length the hemorrhage ceased, and I supposed she was out of danger, if managed with discretion; and being under necessity of leaving home for three days, insisted that she should not be raised at all in my absence, and emphatically observed that there would be imminent danger in so doing. But in my absence her after pains became a little troublesome. A neighboring physician was called in who deemed it proper to administer cathartic medicine, during the operation of which she was forced on the close stool; syncope soon followed, from which she partially rallied. This took place a short time before my arrival at home, and I was immediately solicited to take charge again of the patient. Upon entering the room about two hours after the syncope, I found her laboring under the greatest difficulty of respiration. Every inspiratory action was produced by voluntary power, and very irregularly. I approached her and found a pulse scarcely perceptible, and numbering 150 in a minute, with cold extremities. I warned her husband of what I believed to be the approaching fate of his wife, and did not hesitate to declare that forcing her up had been the procuring cause of her forlorn condition; that a clot had formed at the instant of syncope, produced by suddenly changing her position, and would necessarily prove fatal.* Laudanum and acetate of lead injections were used to quiet the bowels, sinapisms, and warmth applied to the extremities, stimulants internally, galvanism—but all to no purpose, and I thought the stimulants internally given did harm.

The poor woman lingered along under these symptoms, the most horrible that can be imagined; the countenance expressive of the greatest anxiety and distress; saying, as long as the powers of speech remained, and after that by gesture, “Oh Doctor! do help me if you can.” In short, she was anæmic from hæmorrhage. She took the cathartic in the morning, it forced her up at noon, in consequence of which, some great change took place in the respi-

* For this opinion I am indebted to the article before alluded to in the “Examiner.”

ratory function, and at sun-set she was where pain and trouble could not reach her.

I ought to have mentioned, that this woman told me herself, that she was very comfortable before attempting to get up, (save from after pains and physic.)

That great muscular efforts and consequent exhaustion of nervous power may induce those conditions which favor the sudden formation of clots in the heart, the following case of an animal would seem to prove :

One evening, in the autumn of 1848, while urging a horse of mine forward in great haste to see a person said to be alarmingly ill, and the animal having been used to excess during the day, he stopped short on the highway, staggered and came near falling, acting precisely like a person in a state of syncope ; great difficulty of breathing came on at once ; the poor fellow seemed to be in the utmost distress. He partially rallied, and I succeeded in leading him home, a distance of two or three miles at a very slow walk ; for the instant I attempted to hurry him, symptoms of suffocation would ensue. His legs became cold at once ; his tongue and mouth pale and bloodless ; respiration laborious and hurried ; very quick pulse. Thus he lingered on for several days in great distress, and became dropsical in the limbs before death.

Suspecting some affection of the heart or lungs, I proceeded to examine him soon after death. Upon opening his chest, the pericardium was found very much distended with serum. The left auricle and ventricle were empty, but the right ventricle was nearly filled with an enormous mass of white fibrinous matter, extending some portions into the right auricle. I could detect no other sign of disease in this animal. I had owned him two years, and he always carried the appearance of health until this sudden seizure.

I now leave this subject in the hands of the candid enquirer to form his own conclusions, and say if anything but the clot in question could account for the sudden deaths here related. Admitting this position, and the management of persons in a state of exhaustion from hæmorrhage or any other cause, will readily suggest itself to any intelligent person. Too much emphasis cannot be placed upon the propriety of confining such cases to the horizontal position until a sufficient amount of blood has been acquired to

obviate the danger of syncope, and this can, in general, be determined by the force of the pulse, together with the general appearance of the patient. But even then their position should be gradually changed, examining closely the effects on the circulation.

BIBLIOGRAPHICAL NOTICES.

Ship Fever, so called: its History, Nature, and best Treatment. The Fiske Fund Prize Dissertation for 1849. By HENRY GRAFTON CLARK, M. D., Member of the Boston Society for Medical Improvement. 8vo. pp. 48. *With a plate.* Boston, 1850.

This essay is the result of observations made by its author, as visiting physician of the Deer Island Hospital. This establishment being designed for the reception of sick emigrants, afforded an excellent field for the study of this disease, the prevailing one among them. It is generated, according to our author, not by the scarcity or bad quality of their food, but by the bad atmosphere resulting from overcrowding and filthy habits. He thus describes a scene he witnessed on one of the emigrant vessels. "There were fifty or sixty sick persons in various stages of fever, some with the dysentery, which sometimes follows as a secondary attack, lying in their berths indiscriminately together, adults and children, without the least care or attention to cleanliness, and as, we were assured, they had done during the continuance of the whole voyage! In another berth were the bodies of two children, who had died within an hour or two of our arrival; and close by them, and almost in contact, the feeble mother at whose dry and withered breast dragged a miserable and squalid infant. Those who were able, were staggering about with haggard countenances, whose starting eyes and hollow cheeks showed how narrow an escape they had themselves had from the lonely grave in mid-ocean, which their associates and their relations had long since found."

Dr. Clark alludes to many facts to prove the contagious nature of this fever, and states that in the hospital under his care all the

nurses had been attacked, the physician had died, and the only remaining assistant physician and apothecary were sick. He believes also that it may be propagated by chests of clothing. Very praiseworthy measures were adopted to ensure complete ventilation and cleanliness, after the hospital was placed under the care of Dr. Clark. The air of the hospital was constantly renewed, the fever patients in the acute stage were washed every morning, deodorizing agents employed, and all unnecessary articles of clothing removed from the wards. Every patient was washed before admission into the house, and their clothing entirely changed. The success of these measures was attested by the diminished mortality, and by the subsequent immunity from contagion enjoyed by the officers, attendants, and visitors to the hospital. Our author believes that a first attack preserves, as a general rule, from a second one, an opinion which he grounds upon a personal familiarity with nearly two thousand cases. He was guided in the selection of his nurses by a knowledge of the fact. The ordinary limit of the disease, he says, is fourteen or fifteen days, but two-thirds of all the deaths occur at a later period. This mortality is caused by the relapses, or, as they are termed by our author, secondary diseases, which he classes under two principal forms, which, though generally distinct, sometimes run into each other.

“1. General dropsy, which is often accompanied by swelling and sloughing, or suppuration of the parotid and other glands, and occasionally by suffocative œdema of the glottis.

“2. A diarrhœa or dysentery, which is usually dependant upon inflammation and ulceration of the ileum and cœcum and is frequently fatal.”

Three cases are reported in full, to illustrate the history of the latter of these secondary affections; and in connexion with this description, Dr. Clark remarks that it is probable “that some of the cases which have been set down as typhoid, (merely on account of the presence of this symptom during life, unverified by a post-mortem examination,) were really the sequelæ of typhus.” Also, “It must then be considered as established, that ulceration of the small intestines does not take place in the acute form of typhus; but that the diarrhœa which happens as a sequel to it depends upon ulceration, hypertrophy, or inflammation of the ileum, cœcum, or colon. *Peyer's glands are usually unaffected in any form of ship fever.*”

The treatment pursued by the author seems to have been a highly judicious one. We need hardly cite it, as it contains nothing particularly new to practitioners. His opinion in reference to the propriety of venesection, is, that in uncomplicated cases it is not advisable, and if we understand him rightly, he seems never to have taken away blood, except by leeches or cups for the purpose of combating a severe pneumonia or bronchitis. The chief reliance was placed upon the administration of stimulants, the proper quantity being determined by the effect upon the pulse. The diet during convalescence was regulated with the greatest care, as a slight indiscretion was very frequently the cause of a relapse or brought on the fatal diarrhœa. When the weather permitted, the patients were allowed to walk into the open air as soon as they were able, and improved, in consequence, much more rapidly than when confined.

We must refer our readers to the original dissertation for the proof of the conclusions at which the author arrives, viz :

“ Ship fever is identical with the true typhus of Great Britain. It is not identical with the typhoid fevers of France and New England, but an entirely distinct disease.

It is most fatal in its secondary forms.

And lastly, that its contagious properties may be greatly controlled, if not destroyed, by suitable sanitary measures.” M. S.

Report of the Committee of Internal Health on the Asiatic Cholera, together with a Report of the City Physician of the Cholera Hospital. Boston, 1849. 8vo. pp. 183.

The Report of the Committee of Internal Health, in Boston, is a well written sketch of the condition of the city at the time it commenced its labors, and of the measures adopted by it to prepare for the visitation of the cholera, by a thorough investigation of all the causes prejudicial to the public health, with the means adopted for their removal. In this arduous work they were ably sustained by the physicians, and it is through their joint labors that we are presented with a most complete and perspicuous account of the localities in which the cholera chiefly prevailed. A number of excellent wood-cuts of the principal places in which it exercised its ravages, and a ground plan of the city, accompany the

Report. We confess that, before reading this Report, we were ignorant that, in so cleanly a city as is Boston, such abodes of wretchedness as those described, could be found. We take the following as an example ; it is a description of Half Moon Place, "probably the worst locality in the city."

"The houses are built around an area from which air is almost totally excluded by the perpendicular wall of Fort Hill on one side, and the lofty buildings of Broad street on the other. A large part of the area is occupied by some twelve or fourteen privies, constantly overflowing, and by ill-constructed and worn out sinks and drains, into which are hourly thrown solid substances, of all sorts, which choke them up, and cause the liquid parts mixed with them to run over. Into the area there is a narrow entrance from Broad street, whilst a steep and crazy stair-case affords a passage to Humphrey place, some fifty feet above. Side by side with the stair-case, and fully exposed, a large, square plank drain makes a precipitous descent, conducting, half hidden, half revealed, not only the waste water of the houses in Humphrey place, but also the contents of its privies to the area below, which, as may be supposed, is redolent of the fact."

It can hardly be a matter of surprise, that the wretched tenants of these filthy localities, were rapidly swept away by the merciless epidemic. The City Hospital was established in this vicinity, but it is stated that it did not itself become a focus of contagion, and its immediate neighborhood having been completely purified, escaped the epidemic entirely.

The medical report is drawn up by Dr. Clark, from the materials furnished by his colleagues and assistants ; the manner in which it is executed, and the great number of interesting facts it contains, reveal the most persevering industry on the part of these gentlemen, especially that portion descriptive of the morbid appearances found after death. Too much praise cannot be awarded them, for the great accuracy with which their autopsies were conducted, in view of the all-engrossing duties of the staff of a cholera hospital, and the negative results which it was anticipated the examinations would yield. It must be owned that they afford us little insight into the true nature of the disease, and still less do they offer any indications for an appropriate treatment ; nevertheless we would not undervalue the importance of any facts, fully attested, however obscure their relations may at present be to us.

While, therefore, as is stated in the Report, the most remarkable and constant appearances were, an unusual dryness and stickiness of the serous membranes, a moderate tumefaction of Peyer's glands, and the "glandulæ solitariae," and a shrivelled condition of the spleen, and these may be probably regarded as characteristic phenomena found only in cholera patients—we are not without hope, that the mutual dependancy of symptoms and lesions may at some day become more manifest than they are at present. It is hardly possible that thirty-two carefully conducted autopsies of cholera patients, shall not be of some value in the elucidation of the disease, and have some indirect bearing upon its curative treatment.

The results obtained by Dr. Clark and his colleagues agree pretty closely with those arrived at by Dr. Gairdner of Edinburgh, and which were quoted in the American Journal for October, 1849. The absence of those appearances of congestion, so commonly loosely assumed to exist in cholera, as well as of any viscosity of the blood, the occurrence of ecchymoses in various parts, and particularly in the sub-mucous coat of the intestines, and the presence of bile in the gall-bladder and sometimes in the intestines, as in persons dying of other diseases, are all points which receive ample confirmation from the reports of both observers. Dr. Clark differs, however, from Dr. Gairdner, in his opinion that the abundance of uninjured epithelium cells found floating in the intestinal fluids after death from cholera, is due to a separation of the same by the maceration of the mucous coat of the bowel. The only fact of importance, alleged by him in support of this difference of opinion, is, that the mucous surface of the vagina and of the bladder, neither of which are, of course, subjected to maceration, are covered uniformly with a "thick white pasty or creamy secretion, which, on microscopic examination, is seen to consist entirely of detached epithelium cells, mostly perfect in shape and generally distinctly nucleated." While the question remains still *sub judice*, the important fact announced by Dr. Gairdner, "that the true cholera stools *passed during life*, contained so little perfect epithelium, that it cannot be considered as anything more than an accidental ingredient," renders the idea very improbable, that the exfoliation spoken of can play a very important part in the disease. The reality of this exfoliation, (whether it be before or after dissolu-

tion,) is most clearly demonstrated by the injections of Dr. Neill, presented to the museum of the College of Physicians of Philadelphia, with the Report of the Committee appointed by that body, "to examine into the condition of the mucous membrane of the intestinal canal in persons dying of cholera." In the language of that Report, "The epithelial layer of the intestinal mucous membrane, was in all specimens either entirely removed, or was detached, adhering loosely as a pulpy layer, mixed with mucous or an albuminoid substance." The tumefaction of the solitary and Peyer's glands was observed also by this committee as well as by Dr. Clark. A very interesting case is related in Dr. Clark's Report, (p. 50,) of a patient who passed into the typhoid condition so often following cholera, and died after it had lasted a week, or from the invasion of the cholera, ten days. "The patches of Peyer, situated at the lower part of the ileum, were inflamed and deeply ulcerated; two of them showing an abundant deposit of typhus matter, which projected into the intestinal cavity, like loose, granular coagula." The spleen, too, was engorged and enlarged, and the remaining anatomical conditions were not dissimilar from those found in spontaneous typhoid fever. If this patient was really in health before he was attacked with cholera, the case is certainly a most uncommon one, and deserved to be given in more detail than it is presented to us.

The treatment pursued in the Hospital was very unsuccessful, and that for the very evident reason which may be predicated of all public hospitals in times of pestilence, viz. that the patients were not brought in, until it was beyond the power of medicine to be of any service to them. During a period of five months and a half, two hundred and sixty-two patients were "*subjected to treatment*," of these one hundred and sixty-six died, and ninety-six recovered. "Patients came in, so far gone in collapse, that we expected them to die at any rate. With this feeling it was in several instances judged best to give them no medical treatment, but to let them follow their own inclinations. In no one case where this practice was followed, did the patient recover."

"Apparent narcotism," the Report says in another place, "was noticed in many of the fatal cases upon entrance. The patients who exhibited this symptom had generally been many hours under treatment before entrance, and from many of them we learned that

excessive doses of opium had been taken. In most of these patients there was a contracted pupil, not influenced by light or darkness, stertorous breathing, difficulty of hearing, together with the customary evacuations and occasional cramps. These appearances were the more remarkable, because in the generality of fatal cases, patients were decidedly active and intelligent until within a short time of death, which in these cases was always the speedy result.

The Report gives a very discouraging view of the utility of remedies. It condemns, either as useless or injurious, narcotics, camphor, stimulants, calomel, emetics, quinia, astringents, aromatics and cathartics, ether, venous injections, external heat, dry or moist, and "packing" in the wet sheet. The only remedies favorably spoken of, as palliatives, or useful at certain stages of the disease, are the cold sponge baths, cold affusion, bleeding, wood naphtha, and saline medicines. There is unfortunately no comparative tabular or other statement given of the remedies used in the cases which recovered, and those which died. The medical staff of the Hospital must have been reduced to the verge of despair by the inefficiency of their treatment, when they seriously thought of trying the homœopathic practice. But fortunately, we think, "no one of our number understood it, and notwithstanding offers were made to several homœopathic practitioners, we could not find among those any who were willing to come into the Hospital, upon equal terms, and take charge of an equal number of patients with ourselves." If the homœopathic practitioners have faith in their doctrine and are not afraid to reveal the mysteries of their practice to the eyes of physicians, let them build their own hospitals and practice their system on as many as may voluntarily submit to it; but for our part, we must protest against the spirit of weak liberality shown in the above instance. We cannot but feel that it is derogatory to that love of truth which should characterize the medical profession, to entrust human life in the hands of those who practice an ephemeral folly, equally irreconcilable with truth or common sense.

The numerous facts contained in these Reports, render them extremely valuable, and we therefore heartily commend them, especially to those interested in the study of the history of the late epidemic.

M. S.

A Memoir on Stricture of the Urethra. By J. P. METTAUER, M. D., LL. D., Professor of the Principles and Practice of Surgery in the Medical Department of Randolph Macon College, Virginia.

This monograph embraces an abstract of the personal experience of one, who has for many years occupied a prominent position in the medical profession, and who has devoted much time and careful attention to the study and treatment of stricture of the urethra. It is always gratifying, if not really instructive, to learn the results of the extended experience and numerous observations of those who have labored long and zealously in investigating the nature and ascertaining the most appropriate and successful modes of treating disease. The subject of which our author treats, is one that is often exceedingly perplexing to the practitioner and greatly annoying to the patient; not unfrequently requiring a great deal of patience and perseverance, as well as skill, on the part of the former and a determined co-operation on the part of the latter. That he has fully appreciated the many difficulties to be encountered in the proper management of this disease under the different phases in which it is seen in a large practice, and has availed himself of all the resources supplied by extensive reading, by careful observation, and much sound reflection, is evident from this account of the modes adopted and followed by him in his practice. After making some brief remarks respecting the varieties of stricture, he says, of their location in the urethra—"about two-thirds of my cases had their seats at or near the bulb. Fifty-one cases were attended with contractions at the bulb and anterior extremity of the prostate, and one hundred and eighteen in which the strictures occupied the posterior orifice of the fossa navicularis, the bulb and posterior extremity of the membranous portion of the urethra at the same time." In one hundred and eighty-two cases, treated successfully, sixteen were of the diaphragmatic variety, and "occurred at or near the orifices of the fossa navicularis or in the spongy portion of the urethra beyond the fossa.

The lesions constituting stricture and those consequent to it, as well as their symptoms, are briefly but clearly described. Much importance is very justly attached to lesions co-existent with, and consequent to stricture. The manner in which these are noticed,

evinces a thorough and comprehensive knowledge of the subject of which the author treats. In exploring the urethra, to ascertain the seat of the stricture, the recumbent position, especially in difficult cases, is preferred, and the introduction of the sound with the convexity towards the symphysis invariably adopted, reversing it if it be found necessary to carry it beyond the bulb, without removing it from the urethra. In using the bougie, especially the waxen, to obtain the exact shape of the stricture, our author has found the erect posture generally preferable. Having gained the stricture, the bougie is allowed to remain twenty minutes or more before it is withdrawn. It seems, however, that he has, for some years past, abandoned for the most part the critical exploration of stricture "as a needless refinement in the diagnosis of the disease." He says:—"It certainly saves patients some bodily suffering, and not a little mortification from exposure of their genitals!" There are some cases, however, which he deems it necessary to explore thoroughly and with the utmost precision. The bridge variety is of this class.

In the constitutional treatment of stricture the use of nitro-muriatic acid, externally and internally, has been found a "most valuable means of regulating the bowels, after purging once or twice;" also a combination of Dover's powders and ox or swine's gall to obtain the same effect, in addition to sleep. Our space will not allow of a detailed account of the author's different modes of operating for the radical cure of stricture, or of the different instruments which he is in the habit of using, a minute description of which, accompanied with drawings, has been furnished in the pamphlet before us.

When more than one stricture exists he is in the habit of dividing them all before withdrawing the instrument, unless fainting or sickness of the patient renders it necessary. In some instances the incisions have been dilated by forcing a metallic bougie of a large size through the imperfectly divided stricture. This, however, is deemed a hazardous practice, especially in the hands of inexperienced operators. After the division of a stricture and the introduction of a tube the patient is placed in bed and required to remain there, generally, for several days—not less than two, unless the presence of the tube in the urethra should prove too irritating. The importance of using the bougie, occasionally, for some months,

or even years, after the operation is strongly urged. Having noted some of the most important points in our author's valuable memoir on stricture of the urethra, sufficient, we trust, to give the reader a general idea of its character, and induce him to obtain it and peruse it for himself, we may be allowed to express the hope that his able pen may be spared many years yet to record for the benefit of his professional brethren the result of his individual experience.

SOUTHERN MEDICAL REPORTS: *Consisting of General and Special Reports of the Medical Topography, Meteorology and Prevalent Diseases in the following States: Louisiana, Alabama, Mississippi, North Carolina, South Carolina, Georgia, Florida, Arkansas, Tennessee and Texas; to be published annually.* Edited by E. D. FENNER, M. D., of New Orleans, Member of the American Medical Association, &c. &c. Vol. I. 1850. New Orleans, B. M. Norman; New York, Samuel S. and Wm. Wood. pp. 472. 8vo.

Another valuable contribution to a knowledge of the Medical Topography and Diseases of the South and West. The design and general character of these Reports, are highly creditable to their editor, Dr. Fenner. He proposes to fill up in detail the great outlines so ably sketched by Dr. Drake, in the work noticed in our last number; and for this purpose he has appealed to his medical brethren in that region, with a success of which the present volume furnishes a gratifying proof. For vague generalities, speculations, and not seldom declamation too, are now to be substituted detailed descriptions of the required facts, and their legitimate deductions, expressed in plain prose. If figures are introduced, they will be those of arithmetical and algebraical formulæ rather than of poetry.

Doctor Fenner, in his Introductory Address, shows the wide field and the ample materials and necessity, also, for careful and connected histories of the etiology, characteristic phenomena and treatment of the diseases of that vast region, of which he is himself a denizen,—“already inhabited by *millions* of human beings, and capable of maintaining *tens of millions*.” While paying a

merited compliment to the distinguished physicians of which the South could boast, a century ago, he laments "the long lapse of silent indolence which followed their departure;" and then he asks: "Where shall we look for the records of the deadly pestilence which decimated the inhabited portion of the Southern States half a century ago, or even twenty-five years? With the exception of a few detached essays scattered through the periodicals of our more literary brethren of the North, there is scarcely anything to be found." But, of late, a happy change has come o'er the spirit of their dream.

"Since 1844 we have had as many as four medical journals in the South at one time, three of which are still sustained with much ability, lacking nothing but a better pecuniary support to insure their continuance. Since that period works on practical medicine have, also, recently emanated from Professor S. H. Dickson, of South Carolina, and Doctors Fort and M'Gown, of Georgia."

The contents of this the first volume of Dr. Fenner's proposed annual, in the form of Reports, are REPORTS from *Louisiana, Alabama, Georgia, Mississippi, Tennessee, South Carolina, and Texas*, together with *Excerpta* and *Miscellanies*, and notices of *Medical Colleges of the South and West*, and of *American Medical Journals*. Some of these papers have appeared before, in the Journals of the region to which the descriptions are confined. Alluding to these periodicals, the editor says: "He expects to select from them whatever they may contain of importance, without lessening their influence or checking their progress. Having been four years connected with one of them, and thus become familiar with their arduous labors, one can but wish them all manner of success."

These Reports manifest the characteristic traits of Southern medical literature, in their being full of talent, written in a flowing and exuberant style, and marked by plausible and ingenious reasoning, but tinctured, withal, by a love of hypothetical disquisition, and straining after remote analogies; facts being too often overlaid by speculative commentaries, and opinions replacing actual history. The writers are not fully aware of the rich materials at their disposal, nor are they conscious of their powers to interest and instruct by a methodical arrangement and exhibition of these materials, to the eschewing of scrappy literature, and

attempts to harmonize their own views with those of their distant cotemporaries and famed predecessors.

The reputation of Sydenham awaits him who shall describe the successive epidemic and fixed diseases of New Orleans, with the care and acumen evinced by that great man in his histories of those of London during his own time. The fields of observation turned to such admirable account by Cleghorn in the island of Minorca, and by Hillary in that of Barbadoes, were more limited than those which are within the ken of a physician of Alabama or of Georgia; while the means of insuring more accurate details of meteorology and medical topography can be enjoyed to a much greater extent by an American writer at the present day, than were accessible to the English authors whom we have named.

In offering this little piece of criticism and advice, we ought to add, that the volume before us gives abundant proof, on the part of our medical brethren of the South, not only of an earnest desire to begin a course of careful observation and legitimate inquiry, but, also, of their having made some progress in it. Let us verify this assertion by a more distinct reference to the "Reports."

The first are from Louisiana, and of these the initial article, headed "General Report of the Medical Topography and Meteorology of New Orleans, with an Account of the Prevailing Diseases during the year 1849," is by the Editor. The distant reader will have a good idea of the peculiarly low situation of New Orleans, when he is told:—

"The site being far below the annual elevation of the river, and the *back part* below the occasional rising of the lake, the city has to be protected from inundation by means of *levées* or dams—one running its whole length in front, one above extending from near the river to the swamp, and another covering the entire rear. The *levée* in front is about seven feet in height—above and in the rear it is not required to be so high. Lake Pontchartrain is situated about five miles back of the city, and its level is about seven feet below the base of the front *levée*. The intermediate space between the lake and the city is a cypress swamp, presenting, about midway, a considerable elevation called the *Metairie Ridge*."

The recession of the river from the city has been of late years considerable, so as to leave a large surface of ground for wharves and stores. The Mississippi rises in March and June.

"The streets of New Orleans run at right angles, and are generally narrow in the older part of the city. Those more recently laid off were allowed much greater width. These are principally above Canal street, and in the rear. In the populated part of the city, at the present time, there are three streets of extraordinary width; viz., Canal, Esplanade, and Rampart. The two former separate the three Municipalities, and the latter intersects them in the rear. These streets are about one hundred feet wide, allowing ample pass way on their sides and handsome promenades in the centres, shaded with trees. There are six public squares, appropriately situated and answering the valuable purposes of recreation and ventilation. We have no recollection of any blind alleys in the city. Situated, as we are, at a convenient distance from the Gulf of Mexico, and under the full influence of its balmy breezes, our city does not suffer in the least from want of proper ventilation. According to Dr. Barton, 'the prevailing winds are, during *winter*, E., N., and N. W.; during *spring*, E., S., and S. E.; during *summer*, S. E., E., and S.; during *autumn*, N., E., and N. E. A perfectly calm atmosphere is very rarely noted; resulting, no doubt, from our alternations of land and water, and the rapid current of the Mississippi before so large a surface of the city.'"

About one half of the inhabited part of the city is paved, and the proportion thus improved is increased every year.

"The streets of New Orleans are proverbially muddy and filthy, owing chiefly to the dampness of the climate and the inefficient means resorted to for cleansing. The dependence for *washing* them, is upon heavy rains, the water-works hydrants, placed at long intervals, and the river when above the level of the city. By means of culverts, the water of the river when high is conducted through the levée into the cross streets, and runs in a rapid stream to the rear of the city, whence it is removed by the Draining Company. It will thus appear that, as yet, we have resorted to nothing but *surface draining*; but Dr. Barton has attempted to show that, notwithstanding the low level of the locality, it is perfectly amenable to effective *underground drainage*."

On the subject of the supply of water and underground moisture, we are tempted to quote the following:

"The Water Works Company was chartered in 1833, and commenced supplying the city in 1837. It consists of a reservoir three hundred and twenty feet square, erected upon an artificial mound twenty-five feet high, situated in the upper part of the city, two squares from the river. The water is thrown from the river into this reservoir by a powerful steam engine, and thence distributed throughout the city by means of iron tubes placed under ground in the middle of the streets. The extent of these tubes at this time is about thirty-seven miles. From these main tubes are issued

branches of leaden tube, which convey the water into houses for all domestic purposes. We were informed at the office of the company, that the extent of leaden tube at this time is about *one million feet*. In our special report on *Colic*, the probable influence of these leaden pipes on the water imbibed in the city is briefly examined. The Water Works Company do not afford a supply of water nearly adequate to the purposes of domestic use and washing the streets. Within a few years past, a plan was submitted to the General Council, by which continued streams were to be kept running at all seasons along the cross streets from the river to the swamp; but it was not adopted. Such a measure might exercise a beneficial influence upon the health of the city. At present, the open gutters often present the most disgusting aspect and are exceedingly offensive to the olfactories. There is still a considerable number of vacant lots in the city, many of which are lower than the level of the streets, and, during wet weather, contain stagnant water, which breeds myriads of musquitoes and evolves deleterious effluvia. Stagnant water is also to be found under many houses."

On the score of prison hygiene we learn, "that the inmates suffer less from the prevailing diseases, such as yellow fever, cholera and the like, than any other persons in the city. The prisons are all situated on the outskirts of the city, which we would suppose were the most unhealthy localities; and the only striking differences between the living of their inmates and the citizens at large, consist in the *regularity and temperance of their habits and their seclusion from the direct rays of the sun*."

"The privies of New Orleans are necessarily very shallow—extending only about four feet into the ground. According to municipal ordinance, at a late hour of the night their contents are removed and emptied into the river, instead of being deposited in the rear of the city, as formerly.

The greater part of the city is now lighted by *gas*, the works for the preparation of which are situated in the back part of the city, between Gravier and Perdido streets. Their pipes now extend over a distance of more than thirty-four miles."

Differing on this point from Dr. Barton, to whose labors the editor gives frequent credit, the latter says that his own observations have led him to the conclusion that there is a rainy season in New Orleans as regularly as there is frost in winter, or there are swallows in summer. This occurs in the months of June and July. There has been a great increase of rain during the last four years.

Acclimation.—"Some do not become *seasoned* until they have suffered the severest form of endemic fever belonging to the climate and locality; others become gradually and thoroughly acclimated

without ever suffering an open or severe attack. There are persons who have resided in New Orleans twenty years without ever having had yellow fever, whilst others have had it two or three times. Strong attacks of the severest forms of our remittent, bilious and yellow fever seem to cause a *modification of the system*, which secures to the individual a greater or less immunity from subsequent attacks. Attacks of the *milder* forms, as ordinary intermittents, effect no such immunity; but, on the contrary, when frequent, lead to permanent engorgement of the spleen, and cause an increased liability to the complaint."

Severe attacks of yellow fever, or even mild ones during severe epidemic seasons, certainly give, in Dr. Fenner's opinion, immunity from subsequent attacks, especially if the parties continue to dwell in the same locality. He admits, however, that some persons may be attacked a second time; but, he adds: their system has been so fortified by even a partial acclimation, that they more readily survive the attack than the unacclimated.

Contrary to the common belief, Dr. Fenner shows that *creoles* or *natives* of New Orleans have been attacked with yellow fever. We give his conclusions:

"1. That persons coming from more northern latitudes to this, have to undergo an *acclimation* or *seasoning*, before they become secure in the enjoyment of good health.

2. That this acclimation may be attained without sickness; but that, most generally, it requires the endurance of one or more spells of the customary endemic fevers.

3. That an attack of the endemic yellow fever effects greater security against subsequent attacks, than any form of fever seen in the country; but that the remark is applicable, in some degree, to all of them, excepting the ordinary mild intermittents:

4. That persons may have yellow fever more than once, though it is evident that those who have had one plain attack, usually have little or nothing to dread from subsequent attacks:

5. That *creoles*, or natives of New Orleans, may have yellow fever—though generally, they have it in a very mild form."

So much for our present views of acclimation. The subject is full of interest, and we shall probably recur to it, from year to year, as our experience is enlarged."

After referring to Dr. Barton's annual Report of the Board of Health of New Orleans, and the laborious investigation of the mortality of the city, by Dr. J. C. Simonds, the editor makes the following remarks:

"It will be seen from these reports, that the *sanitary condition* of the city is still *very bad*, and the *mortality very great*. Let us not

deceive ourselves, nor 'lay the flattering unction to our hearts,' that we are blest with as fair a portion of health and longevity as falls to the lot of any other city of equal size ; but rather let us look the facts sternly in the face, and endeavor to find a remedy for every existing evil. We shall never commence the great business of reform, until we have become fully aware of our real condition. Little or nothing has ever yet been done *directly* and *expressly* with the view to improving the sanitary condition of the city of New Orleans. True, we have derived, *incidentally*, considerable benefit from improvements established for the purpose of facilitating commerce ; but we trust the time is not far distant, when this intelligent community, enlightened by the investigations of the medical profession, will adopt all necessary measures for rendering our city, as it may be, both a pleasant and safe abode, at all seasons of the year."

Yellow fever depending, as Dr. Fenner believes, on something within the city corporation may, in his opinion, be finally eradicated. Reference is made to the late inundation, of which a fuller account is given in the following part of the article now under notice, also still more in Mr. Farraday's paper subjoined. The editor gives next *a monthly account of the general aspect of the weather, the stage of the river, the condition of the streets, and the principal diseases prevailing in the city of New Orleans, for the year 1849.*

The *naïve* acknowledgment of the editor, touching the fiscal view of professional labor, is worth repeating.

"The year (1849) has been a very unfavorable one to the physicians of New Orleans. During the first part, we had an immense deal of labor and care, with but poor compensation ; and in the middle and later parts, we had but little practice, and of course, small remuneration."

Articles II and III are on the *Inundations* of New Orleans in the years 1816 and 1849, respectively. The latter, by Mr. G. C. Farraday, describes, also, the *Hydrography of the Mississippi River*. The mean depth of the river at Carrollton, nine miles below New Orleans, has been, for thirty years, on an average, 64.4 feet, supposing the bottom to have remained unchanged.

Annual Report of The New Orleans Board of Health, constitutes the fourth article of these Reports. As our extracts will necessarily, owing to our small space for inserting them, convey but a very imperfect idea of the scope and variety of topics embraced in the Report, we deem it an act of simple justice to repeat here the introductory remarks of the editor.

"The following report, drawn up by the indefatigable Dr. Barton,

one of the committee to whom the task was assigned, will doubtless be read with much interest. We venture to say that no other person in the city would have gone to the trouble of supplying the great amount of valuable statistics, to be found in the tables appended to this report, without the most liberal compensation. Yet here it is—gotten up at *immense labor*, and without any pecuniary remuneration whatever. We cannot expect a continuation of such favors without pay: no man can afford to do it. Dr. Barton seems to have a genius and fondness for those minute observations in meteorology and hygiene, which are so necessary to enable us to arrive at *scientific truth*. They require much time and care, but cannot be dispensed with. We consider the medical profession and the entire community, greatly indebted to Dr. Barton for the beautiful charts and valuable tables accompanying this report, and sincerely regret our inability to insert his large and beautiful chart, on account of the heavy expense.”

Dr. Barton begins his report (for the year 1849) by an emphatic declaration of the necessity, under various aspects, of correct and full sanitary returns, which shall exhibit the diseases as modified “by sex, color, length of residence, occupation and particular locality, the actual climate, and the value of life, or expectation of living.” “With a reputation abroad for perennial pestilence, with a boasting at home of unparalleled salubrity, it is high time the truth should be known.” The ratio of mortality in New Orleans seems to have been at length ascertained.

The mortality from the class of *Fevers* was 14.58 of the entire mortality, of which more than the half (or 55.30 per cent.) is from *yellow fever*.

Of deaths from *pulmonary* diseases among the fixed population of New Orleans, the proportion is small. Dr. Barton says:

“By the following table it will be seen, that notwithstanding the addition made to our mortality by emigrants and visitors with these diseases, yet we are more favored in these respects than any large city in this hemisphere.

	Death from Phthisis to Total Mortality.	Death from all Pulmonary diseases to Total Mortality.
Philadelphia,	14.84 pr. ct.	28.57 pr. ct.
New York,	17.50 “	28.08 “
Havana,	19.50 “	25.07 “
Boston,	15.13 “	23.97 “
Baltimore,	18.20 “	23.33 “
Charleston,	18.27 “	22.73 “
Mexico, (city,)	2.45 “	16.76 “
Norfolk,	11.01 “	12.78 “
New Orleans,	9.37 “	13.87 “

The aggregate mortality of New Orleans in 1849 was 9862, of which 29 per cent. were from deaths in the various hospitals.

“From this exhibit of the principal causes of mortality we proceed to refer you to the entire aggregate. It amounts to 9862; of whom, about 29 per cent. died in the various hospitals. From this, deducting 3176 for cholera, and 372 from causes of death other than *diseases*, the nett mortality amounts to 6314; being at a ratio of 1 in 16.67 or 5.99 per cent. The stationary population being estimated at 105,347; being an increase of 5.32 per cent., annually, over the population of 1847, when the census was taken.”

The mortality in New Orleans in early life is very small, being only 36.98 per cent. in those under 20 years of age. That is to say, that for every 100 born, 63.02 reach their twentieth year. In Massachusetts the mortality is 40 per. cent., and in England 47 per cent., before the sixteenth year is reached.

The impression of the committee (Dr. Barton being the chairman and reporter,) is, that the mortality of New Orleans “is at *least double* what it ought to be, were such improvements made as science, observation and experience point out, and humanity and interest demand.”

The second part of the report from which we have already made some excerpts, is devoted to a consideration of the means of improving the health of New Orleans, by a removal or mitigation of the causes of disease. These present themselves under the heads of “*great elevation of temperature, [deficient] ventilation, undue moisture and filth.*” Tables of mortality and of meteorology, and classification of the deaths and diseases of New Orleans, for the year 1849, accompany and give additional value to the report.

Article Fifth, by the Editor, is a “Special Report on the Fevers of New Orleans—particularly the Yellow Fever of 1849.” He begins by telling of his opportunities for a practical acquaintance with the fevers of the country prior to his going to New Orleans to live, in 1841. Respecting the difference between these fevers and the yellow fever, and their proportionate prevalence in the city, Dr. Fenner thus discourses:

“In New Orleans we have met with all the forms of endemic fever which were familiar to us in the country, (West Tennessee, Mississippi and Madison Parish, La.,) with the addition of yellow fever and ship fever or genuine typhus. We have found those common to the city and county to prevail at the same season and

in a similar manner, excepting that we meet with a more rapid and malignant congestive fever in the country than in the city, and the bilious remittents of the country retain their character throughout, more than they do in the city. Here, in the summer and autumn, they have a decided tendency to *crisis* by *hemorrhage*. This makes *yellow fever*—it forms the true characteristic difference between the high grades of summer and autumnal fever in the city and country, and *must depend on locality and dependent circumstances*. We have intermittent, remittent and continued fevers, alternating in type and running into each other, just as they do in the country. Intermittent fever prevails here throughout the year as it does in the country. During the healthiest years it predominates over all other types; but during the sicklier years, in the country, it runs into remittent bilious and congestive, whilst in the city it runs into yellow fever.

“Dr. Harrison testifies that he had often observed malignant intermittents immediately to precede the outbreaks of yellow fever epidemics.

“The New Orleans Charity Hospital is probably the most extensive fever hospital in the world. Let us see how far the statistics of disease at that institution will sustain our observations. It appears from the records, that in a period of *nine years*, from the 1st January, 1841, to 1st January, 1850, there were admitted into this hospital 73,216 patients; of which number there were admitted for *all the different forms of fever*, 33,381, (and among these last,) for *intermittent fevers*, 17,217.

“It would thus appear that nearly one-half of all the patients admitted into this hospital were for the different forms or types of *fevers*—and that *more than half of these were intermittents*.”

“The following statement will show the prevalence of intermittent fevers at the different seasons of the year, for the time specified :

Int. Fever.	Spring.	Summer.	Autumn.	Winter.	All Fevers.	Yellow Fever.
1841	112	403	177	92	1991	severe.
1842	114	453	394	135	1758	little.
1843	85	208	413	137	2222	severe.
1844	117	469	732	231	2207	little.
1845	180	353	664	206	1763	none.
1846	236	569	1045	218	2603	little.
1847	391	508	691	602	6901	severe.
1848	282	689	874	535	6361	moderate.
1849	420	1701	3738	1275	7575	do.
Total	2443	5353	7728	2331	3381	

“It will thus appear that intermittent fever prevails here all the year round; gradually increasing from the winter up to the au-

tumn, when it begins to decline. It will be seen, however, that there is considerable variation in the amount, as well in the different seasons as in the different years. The proportion is greater in the healthy years; but intermittents are never entirely absent, even when yellow fever is raging. During the nine years specified, on selecting the month in which yellow fever was worst, we found the following relative proportion of intermittent fever at the Charity Hospital:

1841, September—Yellow Fever	682	Intermittent	18
1842, “ “	247	“	144
1843, “ “	365	“	128
1844, “ “	68	“	255
1845, “ “	00	“	279
1846, October, “	83	“	376
1847, August, “	1611	“	74
1848, September, “	597	“	299
1849, October, “	520	“	720
	<hr/> 4133		<hr/> 2293

Dr. Fenner says, “that, as all the forms of idiopathic fever met with at this locality *prevail together* and are frequently seen to *interchange, or run into each other*, we are led irresistibly to the conclusion that they are merely *modifications of diseases springing from one and essentially the same general remote cause*. All authors agree that the intermittent and remittent bilious fevers of the country, in the summer and early autumn, spring from the same remote cause, and consequently are but varieties and grades of the same disease. Now, we contend that the yellow fever of New Orleans holds the same relation to its intermittents, that the severe bilious fever of the country does to the intermittents there—they are therefore in the same category.”

Difference in their mode of termination.—“The fevers of the country cause death by *inflammation of the brain* or of the *gastro-intestinal canal*, or by that strange lesion of the nervous system which is called *congestion*—the fevers of the city produce such an alteration of the blood and the solids as leads to fatal *hemorrhage* and *jaundice*.”

He warns us against continuing in the prevalent belief, that yellow fever is a disease of cities and towns, while intermittent and remittent fevers belong to the country. He has shown “that in New Orleans, one of the favorite abodes of yellow fever, we have

all the forms of summer and autumnal fever met with anywhere—and yellow fever has been seen in very small villages, sometimes even in the country.”

In other parts of the Report, more especially devoted to a consideration of yellow fever, Dr. Fenner states his having seen, during his attendance at the Charity Hospital in the months of September, October and November, cases of intermittent, mild remittent and dysentery run into well marked yellow fever. Without our engaging at this time in an examination of the *questio vexata*, the solution of which, to a certain extent, Dr. F. thinks he has reached, we would remark, that the appearance of diseases in a certain order of succession or concurrence, does not, by any means, establish their identity or even close affinity. The body may be rendered susceptible to an attack of yellow fever, as it may also of cholera, by morbid precursors and derangements of very various and even dissimilar kinds—a fit of indigestion, strong mental emotion, or even a fractured limb, for example.

Dr. Fenner claims somewhat of novelty for his views on the pathology and treatment of yellow fever. We could wish that they had been presented in a more definite and precise manner than we find them in the Report. Is the following meant to be a new view of the pathology of this disease? “In the early stage of yellow fever the derangement of the system is *entirely functional*, and consists chiefly in *lesion of innervation*. In the advanced stages it is altogether a different affair—*organic lesions have then taken place, and the blood is altered.*”* The indications to be fulfilled in its treatment present nothing different from those of antecedent writers.

Touching the treatment, we want a larger addition of detailed facts before we can yield our convictions to the general statements of the editor. He had just been speaking of the circumstances under which sanguineous depletion is of use in yellow fever. “We merely wish to state that since 1847 we have learned from actual observation that liberal doses of quinine and opium, given *early in the disease, and during the exacerbation*, will subdue the fever and permanently and safely cut it short of its natural course, in a great many cases, without resorting to blood-letting in any manner.” He quotes opinions, and iterates his own confidence in the free use of

* The italics in the extracts are all by the authors themselves.

quinine for the cure of yellow fever, "*mais mon cher ami*, you surely know that just the same eulogies have been lavished on the free use of the lancet, and on large doses of calomel, and on the *far niente* practice of some French and Spanish physicians, and yet, notwithstanding, people die in nearly the same proportion as before, of yellow fever." Were Dr. F. at our elbow, we would address him in this fashion—Will he not allow us the privilege of doing so at a distance?

Dr. J. C. Simonds furnishes Article VI., being "Statistics of Yellow Fever and of all Diseases in the Charity Hospital for thirty years, from 1820 to 1849 inclusive.

"The table shows for each year, and for each quinquennial period, the discharges, the deaths and their sum, and the mortality per cent. of yellow fever, the entire number of discharges and deaths of all diseases, and the proportion per cent. of yellow fever. The remarks are not based upon the figures in the table, which speak for themselves, but for the years 1820, 1822, 1824, have been obtained from a report of the Board of Health, and for the years from 1832 to 1844 from a paper by the late Dr. John Harrison, in which he states that 'the terms mild epidemic, epidemic, and violent epidemic, are intended to express degrees, both as to the prevalency and malignity of the disease.' 'In 1832 a violent epidemic of Asiatic Cholera raged at the same time the fever prevailed. In 1833, 1834 and 1835, there also existed sporadic cases of Cholera.'"

The seventh article is by the indefatigable editor, Dr. Fenner. It is a "Report on Epidemic Cholera in the City of New Orleans, 1848-'49." We read many interesting details in this paper, but none which would show that cholera derived any peculiar features from its abode in New Orleans, different from its well known character elsewhere. The questions of importation and home origin are taken up and illustrated by pertinent facts occurring in the field of Dr. Fenner's observations.

The almost entire exemption from the disease in the prisons and orphan asylums of the city, is worthy of note and remembrance.

"By reference to the reports of the orphan asylums and prisons of New Orleans, obligingly furnished by the attending physicians, it will be seen that cholera prevailed in only one asylum, (the Poydras Female,) and there only after the epidemic had completely subsided in the city, (see Dr. Rhodes' report.) The exemption of

the inmates of prisons and asylums from epidemics of yellow fever, is a remarkable, but well established fact."

Period of Greatest Severity.—"The epidemic raged most severely from the 22d to the 30th of December, having reached its zenith about the 28th, on which day the deaths by cholera were *ninety-two*. From the 16th to the 22d, the weather was *oppressively warm*, the thermometer rising as high as 84°. From the 22d, it was cool, wet, gloomy, till the night of the 30th, when there fell a white frost. On the morning of the 1st of January, there was another white frost, and, from that time, the disease declined steadily."

Comparison with the Epidemic of 1832.—"The mortality from cholera, at its late visitation, compares most favorably with that of 1832, when it first scourged our city. The number of deaths by cholera, from the 12th of December, 1848, to the 20th January, 1849, as appears from the reports of the Board of Health, amounted to near fourteen hundred—five hundred and ninety-six of which occurred at the Charity Hospital. We learn from an interesting memoir on the cholera of 1832, addressed to the Academy of Medicine of Paris, by Dr. M. Halphen, a French practitioner of this city at that time, that the disease made its appearance about the 25th of October, in the midst of an epidemic of yellow fever; that, in a few days, it raged severely, and that, in the short space of twenty days, it killed about six thousand people. Dr. Halphen says, that the mortality amounted, on some days, as high as five hundred a day. He estimates the full population of the city then at fifty thousand; and, as cholera broke out during the prevalence of yellow fever, ere yet the absent citizens had returned, and before the customary visitors had dared to come in, he does not think the population, at that time, exceeded *thirty-five thousand*; thus showing the frightful loss of *nearly one-sixth of the population in about twenty days*. When we read over these sad details, we may well congratulate ourselves upon our happy deliverance from the late pestilence. True, we have lost about fourteen hundred people, and amongst them a few valuable citizens; but what would have been our fate, if so malignant a disease as that of 1832 had broken out in December last, when all of our own people were at home, and the city was full of strangers? In 1832, *the living could not afford decent burial to the dead*. Dr. Halphen states, that, on some days, upwards of one hundred corpses were accumulated at the cemeteries, awaiting interment. Large trenches were dug, into which cart loads of uncoffined bodies were heaped indiscriminately; and, in the dead of night, a great many bodies, with bricks and stones tied to their feet, were stealthily thrown into the river. The same ratio of mortality, at the present time, would demand about twenty

thousand victims. Let us turn from the appalling calculation, and thank God that we have been so mercifully spared!"

We pass over the subject of Treatment, as presenting us with nothing new, although what is said is said plausibly.

On the subject of "premedication" as a part of prophylaxis we glean no encouragement from the trials, made at Dr. Fenner's suggestion.

Article eighth, also by Dr. Fenner, is a "Special Report on the Epidemic Colic which prevailed in the city of New Orleans during the summer of 1849."

More justice would have been done to the subject and to the author himself, if he had given precedence to a succinct account of the disease in New Orleans, instead of literary references and speculations as to its probable affinity with various forms of colic described by preceding writers. This blending of description of actual and recent phenomena with literary disquisitions only weakens the force of the former, and diminishes its historical value by distracting the attention of the reader.

"The cholic prevailed at New Orleans during the months of July, August and September; chiefly amongst the laboring class of whites; but to some extent amongst negroes. It occurred during a remarkably healthy season; though, in the time above mentioned, were to be seen cases of intermittent, remittent, typhoid and yellow fever, dysentery and diarrhœa. But these also were confined pretty much to the same classes, as shown by the records of the Charity Hospital. During the three months specified, the number admitted into this hospital was very great, whilst there was little doing in private practice."

No adequate cause of the colic is assigned. Hints are thrown out that it may be lead poison, arising out of the great extent of pipes made of this metal, by which the water is conveyed from the iron mains to the houses for domestic use. The length of leaden pipes now in use in New Orleans, is one million of feet, or more than 189 miles.

Free blood letting, anodynes and laxatives, aided by the warm bath and fomentations, constituted the best treatment in this epidemic colic.

Some useful remarks conclude this paper, on the tests for lead and copper in soda water; and also on lead poisoning, by Dr. Kitziedge of Cincinnati.

The ninth article of these Reports is "On the Topography, Climate and Diseases of the Parish of St. Mary, La., by James B. Duncan, M. D." This is a short but instructive paper, true to its title and promise.

The following is pertinent to an ethnographic question, now discussed with some animation by different writers:

"And here I will remark (as this subject is at the present time exciting much attention, that this class of people, including Terceeroons, Quarteroons, Quinteroos, &c., in this vicinity, are as healthy, as robust, and as prolific as any portion of the community. Many of the men are fine specimens of manhood, have large families of children, and among them are now existing (both male and female) several remarkable instances of longevity. These remarks I presume may be confirmed by the testimony of other physicians practising among them."

Notice is taken of a common disease among negroes on plantations, the prominent symptom of which consists in *dirt-eating*. The condition of the system in which it manifests itself is, Dr. Duncan thinks, often produced by a deficiency of suitable nutriment.

"The diet of negroes on most plantations being salt pork, corn bread and molasses—rarely eating fresh meat and vegetables—a condition of the system is thus produced, closely allied to *scurvy*. In addition to the symptoms above described, I have occasionally seen a spongy state of the gums. There is generally present functional, and sometimes organic disease of the heart."

The treatment is well summed up in the following sentence: "Restore the healthy tone of the system, invigorate the subject, put rich blood into his veins, clothe him well, feed him well, and do not overtask him; arouse his feelings of pride, teach him to feel that he is a reasonable and rational being, and, in a majority of cases, success will attend our efforts, and we shall have the satisfaction of rescuing a valuable servant from the grave."

The next article is by Dr. Wm. A. Booth, "On the Cholera of Lafourche Interior." The editor expresses his opinion of its merits in quite emphatic language, when he asserts that it "contains the greatest number and variety of facts relative to cholera that has ever been published in America," so far as his knowledge extends. The various aspects of this awful scourge and its affinity to other diseases, are well stated. The same may be said of pathological

phenomena exhibited in its course. But in all these we find no positive addition made to our prior knowledge of the subject; nothing assuredly depending on the manifestations of the epidemic in Lafourche.

"Reports on the Origin and Sanitary condition of the Orphan Asylums of New Orleans and Lafayette." By Drs. Rhodes, Carey and Sunderland.

A case of yellow fever has never been seen or heard of among the children in the "Poydras Female Orphan Asylum." The like exemption from cholera was not enjoyed. Out of 150 little inmates of the institution, "the whole number of cases of cholera could not have amounted to less than *fifty* or *sixty*." Why the precise number is not stated, we are at a loss to conjecture. Dr. Rhodes does not favor us with the number of deaths of those who were attacked. Their distribution in different directions, by the advice of Dr. R., need not have prevented him from procuring the requisite statistical returns.

Of two hundred children in the New Orleans Female Orphan Asylum, under the care of Dr. Carey, not a single case of cholera occurred in the establishment. There was one death, and two cases of children, with the disease on them when they were brought to the asylum.

Respecting the "Male Orphan Asylum of Lafayette," under the charge of Dr. Sunderland, we read:

"The average time that the boys have remained in the Asylum is two years, one month and twenty-three days. The average number of boys in the Asylum each year is 71.5. The average number of deaths each year 6.32, which is eight per cent. Of the children under seven years of age 14 per cent. die; while of those over seven only 3 per cent. have died.

"If we take into account only those children who were healthy when admitted, the mortality of those under seven years will be about five per cent., while that for those over seven will be about one per cent. per annum."

We are obliged from want of room, to postpone our notice of the remaining "Reports" until the August number. Their intrinsic worth makes us desirous of presenting a full analysis of them to our readers.

THE MEDICAL EXAMINER.

PHILADELPHIA, JULY, 1850.

AMERICAN MEDICAL ASSOCIATION.

The following resolution, appended to the Report of the *Committee on Medical Literature*, was adopted by the Association at the meeting at Cincinnati in May last.

Resolved, That the sum of ONE HUNDRED DOLLARS, raised by voluntary contribution, be offered by this Association for the best *experimental* essay on a subject connected either with PHYSIOLOGY, or MEDICAL CHEMISTRY, and that a committee of seven be appointed to carry out the objects of this resolution : Said committee to receive the competing memoirs until the first day of March, 1851 ; the authors' names to be concealed from the committee ; and the name of the successful competitor alone to be announced after the publication of the decision.

Dr. FRANCIS G. SMITH, Philadelphia, Chairman.

Dr. ALFRED STILLÉ, Philada. Dr. JAMES MOULTRIE, Charleston, S. C.

“ FRANKLIN BACHE, “ “ ROBERT BRIDGES, Philada.

“ L.P. YANDELL, Louisville, Ky. “ WASHINGTON L. ATLEE, Philada.

In accordance with the above resolution, the Chairman gives notice that the sum of *one hundred dollars* is secured, and will be paid over to the successful competitor, or, if preferred, a gold medal of equal value bearing a suitable inscription.

The competing memoirs must be transmitted to the chairman, free of expense, and should be designated by some appropriate motto ; the author's name accompanying it in a sealed packet, designated in like manner. The successful essay will become the property of the Association, and in case no paper of sufficient merit is offered, the time will be extended for another year.

After the decision of the committee, the sealed packet containing the author's name will be opened in the presence of the ASSOCIATION.

Medical Journals throughout the country are requested to give publicity to the above Notice and to aid in furthering the wishes of the Association in this respect.

FRANCIS G. SMITH, M. D., Philada., *Chairman*.

MEDICAL APPOINTMENTS.

Dr. Joseph Carson has been appointed Professor of *Materia Medica* and Pharmacy in the University of Pennsylvania, in place of Dr. Wood, transferred to the Chair of Practice.

The name of Dr. Carson has long been associated with *Materia Medica* and Pharmacy both as a teacher and writer. Many of the most valuable contributions to the *Journal of Pharmacy*, and the American reprint of Pereira's *Materia Medica*, were from his pen, and the splendid work on Medical Botany, of which he is the author, has stamped him as a proficient in his department. We congratulate the friends of the University on the appointment.

Dr. Daniel Drake has resigned the Chair of Theory and Practice of Medicine in the Medical College of Ohio.

DR. JOHN BELL has received and accepted the appointment of Professor of the Theory and Practice of Medicine in the Medical College of Ohio in place of Dr. Drake, resigned.

Although his numerous friends in Philadelphia will deeply regret his departure from among them, to the profession in Cincinnati it is a source of congratulation that they secured the services of so able and learned, and, withal, so high-toned a gentleman.

Dr. S. Hanbury Smith, the able editor of the *Ohio Medical and Surgical Journal*, has been appointed Superintendent of the Ohio State Lunatic Asylum, at Columbus, in place of Dr. Aylmer, resigned.

We regret to learn from the *Boston Medical and Surgical Journal*, the death of DR. AMOS TWITCHELL. He died at Keene, New Hampshire, on the 26th of May, aged 60 years. Dr. Twitchell was known as one of the first physicians and surgeons of New England. He was a bold and skilful operator, and greatly beloved, as well for his professional attainments as his high social qualities.

The University of Pennsylvania has determined to adhere to the six months course.

Dr. G. B. Wood has gone to Europe to collect materials illustrative of his lectures on the Practice of Medicine in the University of Pennsylvania.

ASSIMILATED RANK IN THE NAVY.

At the semi-annual meeting of the Erie County Medical Society in the State of New York, held in the city of Buffalo, June 12th, 1850, it was

On motion of Dr. Austin Flint

Resolved, That this Society recommend to the members of the medical profession of this county for their signatures, the memorial to Congress in behalf of the medical officers of the navy, praying for

an assimilated rank, believing that the action on the part of our National Legislature asked for, is due not only to the medical department of the navy, but to the character of the medical profession generally.

Resolved, That this resolution be published, and that copies be transmitted to the representatives in Congress from this district, and to the Senators from this State.

From the regular minutes,
JNO S. TROWBRIDGE, Sec.

ASTLEY COOPER PRIZE.

The following communication was sent to us by a valued friend, with the suggestion that it should be published in the Examiner, for the benefit of aspirants in this country. It was unfortunately mislaid until the moment of going to press. We have, therefore, merely the opportunity of laying it before our readers, without comment.—[EDITOR MEDICAL EXAMINER.]

The subject for the fourth triennial prize of three hundred pounds, under the will of the late Sir Astley Cooper, Bart., is "*The Structure and use of the Spleen.*"

The condition annexed by the Testator is, "That the Essays or Treatises written for such prize shall contain original experiments and observations, which shall not have been previously published; and that such Essays or Treatises shall (as far as the subject shall admit of) be illustrated with drawings, which preparations and drawings shall be added to the Museum of Guy's Hospital and shall, together with the work itself and the sole and exclusive interest therein and the copyright thereof, become thenceforth the property of the Hospital, and be transferred as such by the successful candidate."

It is the will of the Founder that no Physician, or Surgeon, or other officer, for the time being, of Guy's Hospital or St. Thomas' Hospital, nor any person related by blood or affinity to any such Physician or Surgeon, or other officer for the time being, shall at any time be entitled to claim the prize; but, with the exception here referred to, this (the Astley Cooper) Prize is open for competition to the whole world.

Candidates are informed that their Essays, either written in the English Language, or, if in a Foreign Language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1853, addressed to the Physicians and Surgeons of Guy's Hospital.

Each Essay or Treatise must be distinguished by a Motto, and be accompanied by a sealed envelope containing the name and address of the Writer. None of the sealed envelopes will be opened, except that which accompanies the successful Treatise. The unsuccessful Essays and Treatises, with the illustrative preparations and drawings, will remain at the Museum of Guy's Hospital until claimed by the respective writers or their agents.

CORRESPONDENCE BETWEEN DR. C. J. B. WILLIAMS AND A HOMŒOPATHIC PRACTITIONER.

The *London Lancet* of March 23d, contains the following correspondence.

The Letter.

" ——— Street, Friday, 22d February, 1850.

"DEAR SIR,—I am very desirous of having your opinion in a case of suspected disease of the heart. The patient is the Hon. Mrs. ———, at present residing with Lady ———, ——— Square. Will you have the goodness to inform me at what hour on Monday it would be convenient for you to see Mrs ———?

"I think it right to state that Mrs. ——— has been for many years a convert to homœopathy, and that I, as you possibly may have heard, practise that system of treatment. I mention this, because you may have some objection to meet a homœopathic physician in consultation, and I should much regret if I were the means of inducing you to do anything distasteful to you in ignorance of the above facts. I may however, mention that it is as a matter of diagnosis rather than of treatment that your opinion is desired, and that my friends, Sir ——— and Dr. ———, have seen the case with me on former occasions. I remain, dear Sir, your very obedient servant, " ———."

"To Charles J. B. Williams, Esq. M. D. etc."

The Reply.

"7 Holles Street, Cavendish Square, 23d, 1850.

"DEAR SIR,—I am obliged to you for your courtesy in wishing to have my opinion on the diagnosis of the case of the Hon. Mrs. ———, and for your candor in apprising me that she is under homœopathic treatment; but under these circumstances I must beg you to excuse my attendance.

"Believing, as I firmly do, that the so-called 'homœopathic system' is an entire fallacy, and therefore calculated to do much injury to those on whom it is practised, I consider it *to be my duty to do nothing that can, directly or indirectly, countenance or aid it*; and it appears to me, that to meet a homœopathic physician in consultation, and to assist in the diagnosis of a case professedly under homœopathic treatment, would have such an effect.

"I need scarcely add, that I have no personal feelings in the matter. And hoping that you will soon return to the legitimate domain of rational medicine, "I remain, dear Sir, yours faithfully,

"To Dr. ———.

"C. J. B. WILLIAMS.

Dr. Williams' conduct in this case is most honorable and worthy of imitation: but the adoption of any other course by a leading physician, would have been a heavy blow and a great discouragement to the practitioners of legitimate medicine. Minor men may, (with their guinea bribes) be allowed to dally with 'entire fallacies,' but the consulting physician, who meets a homeopath, a hydropath, a chrons-thermalist, or any charlatan, must be carefully repudiated by the profession. We wish this hint to be acted upon: a laxity prevails.

Deaths in Philadelphia from April 20th to June 22d, 1850. Reported by Mr. JAMES AITKEN MEIGS, Student of Medicine.

Diseases.	Ad'ts	Chil.	Diseases.	Ad'ts	Chil.
Abscess,	3	0	Fever, puerperal,	5	0
“ of lungs	1	1	“ remittent,	1	2
“ of throat,	0	1	“ scarlet,	3	103
Anæmia,	4	1	“ typhoid,	9	3
Aneurism of Heart,	1	0	“ typhus,	8	4
Angina Pectoris,	0	1	Fracture,	1	0
Apoplexy,	20	0	“ of skull,	1	0
“ Pulmonary,	1	0	Fungus hæmatodes,	1	0
Asthma,	2	0	Gangrene of leg,	1	0
Burns and Scalds,	3	8	Gout,	1	0
Cachexia,	1	0	Gun-shot wound,	0	1
Cancer of breast,	4	0	Hæmorrhage,	2	1
“ stomach,	2	0	“ from uterus,	2	0
“ uterus,	2	0	Hæmoptysis,	7	1
Cancrum oris,	0	4	Hæmatemesis,	1	0
Caries of spine,	0	1	Hernia,	1	2
Casualties,	2	5	Hydrocephalus,	0	61
Cholera infantum,	0	29	Hydropericardium,	6	1
“ morbus,	4	1	Hydrothorax,	9	9
Colic,	1	0	Inanition,	1	3
Compression of brain,	0	1	Inflammation of brain,	5	27
Congestion of lungs,	4	4	“ breast,	0	1
“ brain,	7	12	“ bronchi,	6	28
Convulsions,	2	74	“ diaphragm,	1	0
“ puerperal,	1	0	“ heart,	2	0
Croup,	0	22	“ kidneys,	1	0
Cyanosis,	0	3	“ larynx,	1	2
Debility,	9	37	“ liver,	8	0
Diarrhœa,	7	13	“ lungs,	22	55
Disease of brain,	4	17	“ peritoneum,	5	5
“ chest,	2	0	“ pleura,	2	0
“ heart,	10	7	“ stom. & bowels,	15	22
“ liver,	3	0	“ uterus,	0	1
“ lungs,	0	4	Intemperance,	11	0
“ ovary,	1	0	Jaundice,	0	3
“ spleen,	0	1	Malformation,	0	2
“ stomach and bowels,	1	1	“ of heart,	0	2
Dropsy,	11	4	Mania,	2	0
“ abdominal,	1	1	Mania-a-potu,	10	0
Drowned,	13	9	Marasmus,	1	18
Dysentery,	9	23	Measles,	0	27
Dyspepsia,	1	0	Melanosis,	1	0
Effusion on brain,	2	11	Mortification,	0	1
Emphysema pulmonary,	1	2	“ of mouth & throat,	0	2
Erysipelas,	8	7	Neuralgia,	1	0
Fever,	0	6	Old age,	29	0
“ congestive,	0	1	Obstruction of intestines,	0	1
“ continued,	1	0	Parturition,	2	0
“ intermittent,	1	1	Palsy,	7	1

Diseases.	Ad'ts	Chil.	Diseases.	Ad'ts	Chil.
Phlegmasia dolens,	1	0	Sunstroke,	1	0
Phthisis pulmonalis,	138	32	Syncope,	1	0
Pertussis,	0	10	Syphilis,	1	0
Poisoning,	4	3	Tabes mesenterica,	0	4
Purpura,	1	1	Teething,	0	3
Rheumatism,	2	0	Tetanus,	2	0
Scirrhus of stomach,	1	0	Ulceration of liver,	1	0
Scrofula,	3	10	" throat,	0	4
Small pox,	1	5	" bowels,	4	1
Softening of stomach,	0	1	Unknown,	12	14
" brain,	1	1	Violence,	1	1
Sphacelus of throat,	0	1	Varicella,	0	1
Still born,	0	86	Wounds,	0	1
Suffocation,	1	1			
Suicide,	1	0		519	882
Total,					1401

Of the foregoing the ages were as follows:—

Under 1 year,	-	-	-	345
From 1 to 2,	-	-	-	163
2 to 5,	-	-	-	222
5 to 10,	-	-	-	81
10 to 15,	-	-	-	26
15 to 20,	-	-	-	43
20 to 30,	-	-	-	124
30 to 40,	-	-	-	111
40 to 50,	-	-	-	97
50 to 60,	-	-	-	57
60 to 70,	-	-	-	50
70 to 80,	-	-	-	43
80 to 90,	-	-	-	29
90 to 100,	-	-	-	10

1401

Included in this number, are 95 from the Almshouse, 121 people of color, and 14 from the surrounding country.

Died, in Philadelphia, Dr. ROBERT EGGLESFELD GRIFFITH, in the 53d year of his age.

Dr. Griffith was essentially one of the working men of the profession. Although in feeble health for some years past, his active mind was constantly engaged in adding to the stores of medical literature. Among the productions of his pen we may mention the Universal Formulary, of which we recently gave a notice, a work on Medical Botany, an American edition of Taylor's Medical Jurisprudence, and Christison's Materia Medica. To his friends his loss will be irreparable, and the void created by his death will be hard to fill.

MEDICAL DEPARTMENT OF THE ARMY.

By a board of Army surgeons which was convened on the 15th ult., in the city of New York, for the examination of assistant surgeons for

promotion, and of applicants for appointment to the Medical Staff of the Army, Assistant Surgeons Charles H. Laub, Richard H. Coolidge, and Alexander S. Witherspoon were examined and found qualified for promotion.

The following applicants for the appointment of Assistant Surgeon in the Army were also examined and approved :—

Samuel, W. Crawford, Pennsylvania ; William H. Tingley, Pennsylvania ; John J. Milhau, New York ; Aquila T. Ridgley, Louisiana ; Charles Page, Virginia ; Archibald Taylor, Virginia ; Charles Sutherland, Pennsylvania.

RECORD OF MEDICAL SCIENCE.

ANATOMY AND PHYSIOLOGY.

Impulse of the healthy heart. By O'BRYEN BELLINGHAM, M. D.—The impulse of the heart accompanies the systole of the ventricles and the first sound of the organ, and has its cause in the apex of the heart coming in contact with the parietes of the thorax between the cartilages of the fifth and sixth left ribs. The mechanism by which the impulse is produced, was long a disputed point, and various have been the theories advanced by physiologists to explain it : even the period of the heart's action at which it occurs has been the subject of difference of opinion.

Thus it was at one time maintained that the impulse occurred during the diastole of the ventricles ; and this opinion appeared to derive confirmation from the fact that when the heart of the frog is exposed (which will continue to pulsate for a considerable time after being laid bare,) the ventricle, during its diastole, is seen to expand, and to approach the parietes ; while during the systole the apex is simply approximated to the base. In this animal, therefore, the heart approaches the parietes during the diastole, not during the systole of the ventricle, and any impulse which is given, must be at the period of the ventricular systole. An experiment was performed by Oesterreicher, which consisted in removing the heart of the frog from the body, and laying upon it a substance sufficiently heavy to press it flat, and yet so small as not to conceal the heart from view. He states that during the systole of the ventricle the weight was raised, but that during its diastole the heart remained flat. This experiment has been quoted by Muller and others, to prove that the diastole of the ventricles is not a muscular act, in ignorance, apparently, of the foregoing peculiarity in the action of the heart in this animal. In warm blooded animals, however, experiments and observations repeated over and over again have proved that the impulse occurs at the period of the ventricular systole, and that it is due to the apex of the heart coming in contact with the parietes of the chest.

Mechanism by which the impulse of the heart is produced.—It will not be necessary to delay to notice the various theories which have been advanced in order to explain the mechanism by which the impulse of the heart is produced : the majority of these are founded on errone-

ous views. It will be sufficient to observe, that during the ventricular systole, the walls of the ventricle become more convex upon the surface, the apex of the heart describes a spiral motion from behind forwards, and from right to left: in describing this spiral movement, the apex glides obliquely upon the pericardium, is approximated to the base, comes in contact with the parietes of the thorax in the intercostal space between the cartilages of the fifth and sixth ribs, and thus causes the impulse. Indeed, this part of the heart is naturally so close to the parietes of the chest, that no tilting forward of its apex is necessary to produce the slight shock felt at this period.

It was the received opinion until within a few years, that during the diastole of the ventricles, the heart receded from the parietes of the chest, and that the impulse was produced by a blow or shock given to the ribs by its apex, during the systole. Harvey, Haller, Senac, Hunter, may be quoted as authorities for this theory. The experiments which have been performed upon animals of late years, and the examination of the action of the organ in cases of ectopia of the heart, have, however, shown that this theory has no foundation, and that the heart "does not suffer any changes in consequence of its own efforts (exclusive of the movements of the lungs and diaphragm) except in its shape and size, in the thickness and tension of its parietes, and in the capacity of its cavities," which are quite sufficient to produce the slight shock felt when the hand is laid on the parietes of the chest.

M. Ritter has recently advanced this as a novel doctrine, in ignorance probably of the results of the experiments of the "Committees of the British Association." His experiments are entirely corroborative of those previously made. "The portion of the heart's surface (he observes) which is in immediate relation to the walls of the chest is at all times in close contact with them; and it is impossible that in any of its motions it can act so as to withdraw itself from the thoracic walls or so as to leave a space between them." Being thus fixed, therefore, it follows that, when the heart contracts and assumes a more globular form, it will exert its distending force on the yielding intercostal spaces against which it rests, and will thrust them forwards, so as to produce the impulse. This distending force cannot be exerted with any effect against the unyielding ribs or their cartilages; and consequently the impulse is not perceived by the finger placed over the cartilages of the fourth, fifth, or any other rib. If the impulse was caused by an actual stroke or blow of the heart against the walls of the chest, it would be perceived on these parts and on the sternum as clearly as it is in the intercostal spaces, and every person would feel the impulse of his own heart, just as a pregnant woman feels any violent movements made by the *fœtus* in utero."

Sound sometimes produced by the impulse of the healthy heart.—Although in the healthy subject, when the circulation is tranquil, and the heart's action is normal, no sound is produced by the impulse, yet it occasionally happens, that when the same heart is excited to increased action,—in other words, when palpitation ensues, whether the cause be mental emotion or corporeal exertion, but particularly the former,—the apex of the heart does come in contact with the ribs, the patient

feels the blow or shock produced by the impulse of his own heart, and this is accompanied by sound, which of course will be heard at the period of the first sound of the heart, and will modify it in a certain degree, or add to it. Under such circumstances, the first sound of the heart becomes loud and ringing, and in diseased states it is sometimes so intense as to be audible without applying the stethoscope, and may be heard at a short distance from the patient. This point will be again alluded to when we come to consider the abnormal conditions of the heart.

Seat of the impulse of the heart.—The point at which the impulse of the heart is felt in the healthy male, is the intercostal space between the cartilages of the fifth and sixth ribs upon the left side, to the sternal side of the nipple, and about two inches below this point. In the female, owing to the habitual wearing of stays, the impulse is usually a little higher up—viz. between the cartilages of the fourth and fifth left ribs; and in the latter months of pregnancy, for an obvious reason, it is perceived still higher up, and the apex is pushed more to the left side.

The impulse of the healthy heart is naturally slight; it is more marked in the erect than in the recumbent position, because in the latter position, the heart, by its own weight, recedes slightly from the parietes of the chest. For the same reason the impulse becomes more distinct if a person leans forward, and more indistinct if he lies upon his right side. In the erect posture, the impulse is said to be slightly lower than in the recumbent posture, but the difference, if any, is very trifling. In very fat persons the impulse is scarcely perceptible to the eye or hand. In very lean persons it is very obvious to both. When the lungs are largely developed, they will overlap the heart more than usual; when the lungs are small, less of the heart will be covered by these organs: in the latter case, therefore, the impulse will be better marked than in the former.

Alteration of the impulse in inspiration and expiration.—In inspiration, particularly on a full inspiration, the impulse of the apex of the heart will be felt lower down than natural, as low as between the cartilages of the sixth and seventh ribs, or in the epigastrium, between the line of the xyphoid cartilage. This is partly owing to the connection of the heart with the lungs, and partly to the connection of the pericardium with the diaphragm. On a full inspiration the lungs expand from above downwards, as well as from before backwards; and, according to Dr. Sibson, from the manner in which the pulmonary veins are joined to the left auricle, the heart is drawn down by the descent of the lungs. The principal cause of this descent of the heart in inspiration, appears to lie rather in the intimate connection of the pericardium with the central tendon of the diaphragm; as the latter descends it must bring with it the heart; and from the connection of the inferior or ascending vena cava with the diaphragm, it must follow the movements of the latter, and draw down the right auricle. On a full inspiration, the impulse, in addition to being lower down, will be less marked than natural, because the lungs, when fully inflated, meet

so as almost to cover the heart, and prevent its apex from coming in contact with the parietes of the thorax.

On a forced *expiration*, on the other hand, owing to the ascent of the diaphragm, the impulse of the heart is felt higher up—viz. on a line with the space between the cartilages of the fourth and fifth ribs on the left side: it is likewise more marked than natural, because the heart is less covered by lung. The point at which the impulse of the heart is felt, is altered in some diseases of this organ, or of the lungs or pleura, as well as in diseases of the abdominal viscera. These matters will, however, be considered when we come to describe the diseased states of the heart.

Double impulse of the healthy heart.—The impulse of the healthy heart has been almost always described as single; Magendie, however, who attributes the first sound of the heart to the shock of the apex during the ventricular systole, lays it down that the second sound is due to the shock given by the ventricles to the parietes of the thorax during their diastole. “The ventricles in dilating (he observes) in a great measure under the influence of the rapid influx of the blood, give a shock to the anterior parietes on the right side of the thorax, and thus produces the second clear sound.” Dr. Sibson, in his valuable essay upon the “Changes in the Situation of the Internal Organs,” observes:—“A second impulse is often felt in persons whose lungs are diminished, and whose great vessels come close to the sternum. This is synchronous with the second sound, and must, I conceive, be due to the sudden springing forwards of the walls of the right ventricle after the systole.” In the year 1848, in a communication upon the subject of “Aneurism of the Aorta,” made to the Surgical Society of Ireland, I called attention to the fact that the impulse of the healthy heart, when the organ is acting vigorously, is double, not single.

The impulse of the healthy heart, I observed upon that occasion, has been always described as single, just as that of aneurism of the arch of the aorta was supposed to be. If we carefully examine this organ, however, when it is beating vigorously, we shall find that a second but slighter impulse is perceptible, which quickly succeeds the other; and on applying the stethoscope we shall find that this second impulse accompanies the second sound of the heart: it appears as if the agency which gives rise to the second sound was capable of communicating a distinct sensation to the hand or stethoscope.

In the healthy heart the second impulse is scarcely felt, unless the organ beats vigorously; when the ventricles are somewhat hypertrophied, and their cavities somewhat dilated, the second impulse becomes better marked; when this has arrived at an extreme degree, it becomes very evident, and constitutes then the “back stroke of the heart,” or the diastolic impulse. This diastolic impulse, except in cases of disease, is never so strong as to be perceptible to the eye, but is readily distinguished when the ear is applied to the stethoscope laid upon the præcordial region. It is perceived at the same part of the chest as the systolic impulse, and is more marked, the larger the surface of the heart uncovered by lung, and the stronger the action of the organ.

With respect to the cause of the diastolic impulse, Dr. Sibson observes

—"The second or diastolic impulse, which is felt between the second and third, and sometimes between the first and second costal cartilages, is neither more nor less than a sign that the upper part of the right ventricle, and the origin of the pulmonary artery, over which it is felt, are in contact with the walls of the chest." "This diastolic impulse, which is synchronous with the second sound, is a physiological, not a pathological phenomenon, and is due to the sudden return forward of the walls of the right ventricle, and of the origin of the pulmonary artery, immediately after the systole; the parts in question then impinge with a short sharp tap on the left second and third costal cartilages, and on the space between them."

When describing the motions of the heart, we saw that during ventricular diastole, the apex of the heart recedes from its base; the organ becomes elongated, the ventricles increase in all their dimensions, and the hand grasping the heart, is forcibly opened. Now, when we consider how closely the anterior surface of the ventricular portion of the heart lies to the parietes of the thorax, there is no difficulty in understanding how an impulse may be communicated during this movement, equally as during the ventricular systole; it appears only surprising that it should have been so very generally overlooked.—*London Med. Gaz.*

Researches on the development of the muscular fibres of the heart, and on voluntary motion. By DR. LEBERT.—Towards the thirty-sixth hour of incubation, the contractions of the heart of the embryo chick are distinct and regular: nevertheless, at this time the structure of the heart presents only organo-plastic globules surrounded by granular matter. The primal structure of the embryo heart is the same in all vertebrate animals; and in many lower animals, such as the compound ascidia (e. g. *Amorucium*, Milne Edwards), it constitutes the permanent condition. An undoubted difference between these and the globules of the heart's structure may be established from their earliest appearance. This obtains equally with the globules of the hearts of the embryos of mammalia and of fishes: the batrachians alone seem to form an exception, and in these there is rather resemblance than identity between the two kinds of globules.

From the third to the fourth day of incubation the structure of the heart assumes a more diffused appearance. The cellular envelopes of the organo-plastic globules in great part disappear. At this time a superficial layer of fusiform elements may be distinguished, which afterwards becomes the pericardium.

From the fourth to the fifth day there may be noticed for the first time in the midst of the globular elements, elongated cylindrical bodies arranged in reticulated groups. These, the inorganic cells or bodies, constitute the first rudiments of the muscular fibres, and whether in the heart, or in the voluntary muscles, whether in the superior vertebrata or in the batrachians, these always precede the development of the true muscular fibre, which, indeed, constitutes but a higher degree of their development. M. Lebert has not been able to observe the formation of these cells or bodies by regular lineal allocation of plastic

globules. Some included globules which are noticed, must be considered accidental: they are wanting in those of the embryo mammiferi, which, however, they surround externally. The absence of nuclei and nucleoli in these bodies does not disprove their cellular character, since the same feature is found in the globules of the vitellus of the chick, and of the dorsal cord of the embryo frog. The myogenic bodies, though generally roundish, are at first irregular in form in the superior vertebrata.

After the seventh or eighth day, the plastic globules notably diminish, and entirely disappear some days later. The muscular fibres gradually assume their longitudinally striated aspect. Their internal granules arrange themselves in groups in the direction of the length of these bodies, which correspond to the *primitive fibres* of authors. The transverse markings of the fibres are not seen until much later, and it is not until toward the expiration of embryonic life that they are constantly seen. The fibres of the voluntary muscles are formed later than those of the heart, from five to six days after the heart has fully commenced its functions. To give an idea of the distance of time that separates the development of the heart from that of the muscles of voluntary motion in mammifers, it may be stated that the former is seen in the embryo of the bat when .078 of an inch in length, whereas the latter is only met with in embryos of about half an inch in length (0.468.)

A reverse order obtains in the tadpole, in which a necessity exists for early movement in the fluid in which it floats, in order to seek its nourishment. In proportion to this necessity is the early development of the voluntary muscles in all embryos.—*London Med. Gazette from Comptes Rendes.*

PATHOLOGY AND PRACTICE OF MEDICINE

Cases of Poisoning by Coloured Confectionery, with Remarks. By H. LETHEBY, M. B., Lecturer on Chemistry in the London Hospital.—Hannah Martin, aged 4½ years, Jane Embden, aged 10 years, and Amelia Leir, also aged 10 years, were admitted into the London Hospital on Sunday, April 28th ult., suffering from violent sickness and great prostration of strength.

It appeared that they had bought some sugared ornaments and colored confectionery from a Jew in Petticoat-lane; and that soon after they had partaken of these sweetmeats, they became very sick; complained of a burning sensation in the mouth, fauces, and œsophagus, of great pain in the stomach and abdomen, and were seized with violent retching, which was attended, after a few hours, with profuse purging. When they were admitted into the hospital they were seriously ill, for the features looked pale and shrunk, the extremities were deathly cold, the pulse was, in each case, small and feeble, and the surface of the body, especially of the last named child, was covered with a clammy perspiration. Emetics of sulphate of zinc were instantly administered, and the vomited matters were saved for analysis. Antidotes of milk, white of egg, and demulcents, were also given in great abundance; and, after the sickness had subsided, they were permitted to sleep, from which state they awoke considerably revived.

The vomited matters were evaporated to dryness, and the solid residue, not amounting to two drachms in weight, yielded abundant evidence of the presence of arsenic, copper, lead, iron, and zinc,—all of which metals, excepting the last named, had, doubtless, been derived from the confectionary of which the children had partaken.

On making inquiry into the matter, we were informed that between thirty and forty children had been attacked in a similar way, and that they had all purchased sweetmeats from the Jew in question; but it does not appear that he was acquainted with the poisonous nature of his merchandize, for he had purchased it (so he stated) as the refuse stock of a large and very respectable firm in the city.

It is not generally known that the ornamental kinds of confectionery are frequently tinted with poisonous pigments; that the greens, for example, are commonly produced by means of arsenite of copper, (Scheele's green,) verdigris, or a mixture of chrome and prussian blue; the yellow, by chromate of lead; the red, by vermillion, (bisulphuret of mercury,) or oxide of iron; and the whites, by carbonate of lead, oxide, or carbonate of zinc, chalk, or sulphate of baryta; and that, frequently, the fine frosting which covers the commoner kinds of twelfth-cakes, and the hard white sugar of comfits, contain from 10 to 30 per cent. of plaster of Paris or of whiting.

I have been induced to record the preceding cases, not so much for the purpose of exhibiting the nature of the symptoms observed, as with the view of showing the necessity for some legislative interference in a matter of what may truly be termed wholesale poisoning; for, without such evidence before the mind, it would not be credited by the great bulk of the community, that many of the prettiest and daintiest looking confections of the dessert-table are like the choice luxury of the Queen-mother, but too often the source of danger to those who partake of them.

Within the last three years no less than seventy cases of poisoning have been traced to this source; and how many, may we ask, have escaped discovery? In the month of September, 1847, Mr. Hetley, who is the visiting surgeon of St. Marylebone Infirmary, reported in the *Pharmaceutical Journal*, that he was requested, on the 14th of that month, to go as quickly as he could to the relief of some persons who had been taken suddenly and dangerously ill. He found three adults and eight children severely affected with vomiting and retching; the angles of their mouth and linen being colored green by the ejections. On seeking into the cause of this, he was told that one of the children had bought two pennyworth of some colored confectionary ornament, of which they had all partaken. Some of the offending article, (a thin cake of sugar and Paris plaster, covered with a layer of bright green) was, however, found, and it at once made the case clear.

In commenting on the above, Dr. Guy states, that "an accident on a larger scale, but happily unattended by any fatal result, occurred in our own experience,—one of the patients having been brought to the King's College Hospital on the day after the accident. An ornamental green basket, after having been used at an evening party, was given to one of the attendants, who distributed the fragments among the inmates of a large workshop. Severe vomiting and purging was the result. On in-

quiry at several confectionaries, we ascertained that arsenite of copper is commonly used to give a green color to confectionary, and an analysis of a fragment of the basket confirmed this statement."—*Ranking's Abstract*, Vol. VII., p. 347.

At the very time that the preceding article was going through the press, an inquiry was being instituted at Northampton before the county coroner, Mr. Hicks, respecting the death of Mr. William Cowfield, who, with twenty others, was poisoned at a public dinner given in that town, on the 7th of June, 1848, when it appeared that deceased had partaken of a blanc-mange, the top of which was colored with emerald green, (arsenite of copper,) and of which he died.

In the month of February, 1849, Dr. W. Fergus published the case of three children, who were poisoned by eating the green-sugared ornaments from a twelfth-cake. (*Med. Gaz.*, p. 304.) And, in the month of June following, Professor Christison exhibited to the members of the Edinburgh Medico-Chirurgical Society, a green powder which he had purchased at a confectioner's in that city. It was a portion of the stock employed to color jellies, &c.; and, on examination, he found that it consisted of sugar mixed with verdigris and arsenite of copper. His attention was drawn to it by the severe illness of two maid-servants who had partaken of some jelly colored with it.—*Lond. Journal of Medicine*, Vol. 1., p. 702.

Two years since, Professor Louyet, of Brussels, wrote to inform and caution us concerning the fact, that bon-bons, colored with an unusual quantity of chromate of lead, were being manufactured largely in London, and exported thence to Belgium. The bon-bons in question consisted of a species of aromatized sugar, colored yellow throughout its mass, exhibiting the scent and flavor of lemon, and encrusted with a species of transparent red-currant shell. Very recently some cheap almond and caraway and comfits have been sold at the grocers' and confectioners' in many parts of London, which are colored yellow by means of this pigment, for I have detected as much as half a grain of chromate of lead in three of these comfits.

This dangerous practice of coloring sweetmeats, &c., with poisonous substances is, unhappily, not peculiar to the English; for very recently some cases have been reported by MM. Houze and Jaubert, in which four persons were seriously attacked—after having partaken of some bon-bons which were colored with arsenite of copper. One of the patients (a child aged six years) died from the effects of the poison, after an illness of two days; and a second child was brought so near to the grave that she did not recover for two years after the accident. So, again, it is recorded by Chevalier, that at a breakfast given on a festive occasion by an eminent Parisian lawyer, a boar's head was decorated in a very artistic manner with masses of fat, which were colored of a lively red and green tint. One of the guests, who was well acquainted with chemistry, suspecting that the pigment might be poisonous, retained a portion of the fat for further examination, and he found that it contained about two per cent. of arsenite of copper.—*Jour. de Chirur. Med.*, Jan. 1847.

All these facts, and there are many others of a like character which relate to the trade of the pickle-merchant, are sufficient to show that,

however difficult it may be for the Home Secretary to give a correct definition of a poison, or even a complete list of poisonous substances, it is high time that the Government should take some steps to protect the lives of the community from danger, by imposing a sufficient check upon the present unrestricted sale and use of these, and such as these, the commoner poisons.—*London Med. Times.*

MATERIA MEDICA AND THERAPEUTICS.

New Anti-spasmodic—Sumbul.—In recently attending the medical wards of King's College Hospital, we perceived that Dr. Todd was prescribing, in a case of epilepsy, a medicine, the name of which we heard for the first time. On inquiry, we find that this root, called *sumbul*, is being introduced into practice as an anti-spasmodic by Mr. Savory of Bond street. It appears that Dr. Granville, on a recent return from the continent, mentioned sumbul to Mr. Savory as a root employed with great success in Germany and Russia against cholera: wondering that it had not yet found its way into this country. Mr. Savory immediately set about procuring it, but his correspondent in Russia had much trouble in getting this root; he however sent over specimens of it. A little later, another parcel of the sumbul was obtained by the same house from Hamburg; and on comparing the two samples, Mr. Savory came to the conclusion that the German one was decidedly the firmest, least damaged, and in the best condition of the two. We were shown these specimens, and find that they much resemble the circular pieces in which calumba is generally seen, except that they are considerably larger, of a more spongy texture, and resembling huge bungs. They are of a yellowish gray, whitish in the centre, with a thin, pellicular bark surrounding them. The most striking feature of the root is its very strong odor, which very much approaches that of musk, being almost as pleasant and powerful. The pieces are very light, and seemed to be formed of a condensed and hardened pithy substance. From this imperfect description, it may at once be gathered that the sumbul promised to be useful as an anti-spasmodic, and Mr. Savory first thought of combining it with the cotyledon umbilicus, and using it against epilepsy. It is, however, being tried by itself, and though Dr. Todd cannot as yet state anything positive as to results, we were told that the little boy who is taking ten minims of the tincture thrice a day, and who, when admitted, had an epileptic fit once or twice a week, has had no attack since he has been in the hospital. Mr. Savory has likewise prepared an extract of the root, and further trials are of course necessary to judge of the efficacy of the medicine. Musk being, however, very expensive, it would be a great boon to the public were this root found as efficacious. Nothing is yet known of the botanical origin of the plant; efforts are, however, being made to ascertain its natural history, and we shall have much pleasure in communicating to our readers the details which may transpire, both in the latter respect and with regard to the trials which are being made as to the therapeutical virtues of the root.—*Dublin Med. Press, from the Lancet.*

SURGERY.

On Excision of the Os Calcis, in incurable diseases of that bone, as a substitute for amputation of the foot. BY W. B. PAGE, Esq., Surgeon to the Cumberland Infirmary.

The patient whose case is described in this paper was an unhealthy, ill-nourished, scrofulous boy, aged 16, with disease of the right tarsus, the result of a slight injury he had received several years before. In the beginning of the year 1848, suppuration and ulceration took place; in July, the whole back part of the foot was considerably enlarged, and immediately below the inner ankle was an ulcer, from which several sinuous passages proceeded to the bone, through which a probe could be readily passed into two distinct parts of the substance of the carious os calcis. The disease appeared to be altogether confined to that bone; his health was improved by nourishing diet and cod-liver oil; and in October, further examination, confirming the original impression, that the disease was confined to the os calcis, it was deemed desirable that that bone alone should be removed. The patient being put under the influence of chloroform, Mr. Page made an incision down to the bone in its whole extent, from the lower margin of the ulcer, about half an inch below the inner ankle, directly below the sole of the foot to just below the fibula, which would have enabled him to remove the foot at the ankle-joint if the disease of the tarsal bones had proved more general than he had anticipated. The posterior flap was carefully reflected from the surface of the bone; the insertion of the tendo-Achillis separated, and the joint between the astragalus and calcaneum reached. By the introduction of a small narrow-bladed scalpel he succeeded in dividing the ligamentous structures on either side, and also the inter-osseous ligament. He then made two incisions one on either side of the foot, commencing at the junction of the os calcis with the os cuboides, and ending at the extremities of the first or transverse incision, dissected this flap from the under surface of the bone, readily separated the connections of the calcaneum with the cuboid bone, and after a few touches of the scalpel, the former, with scarcely a particle of soft parts attached, was removed. The astragalus and cuboid bones appeared quite healthy. For two or three days he went on quite well, but after that suffered much from acute inflammation of the tarsal joints, which resulted in the formation of an abscess in the dorsal surface of the foot. This was opened, the wound speedily healed, and no recurrence of a like nature took place. Erysipelas and phlebitis being very prevalent at that period in the hospital, this patient did not escape, but in him the disease was confined to the affected limb. In January, 1849, he left the hospital, fourteen weeks after the operation, when he was able to bear considerable pressure on the foot without suffering, but he was forbid to wear a shoe or use his foot for some months. Sixteen months after the operation the foot continued sound; when sitting he is able to extend the foot perfectly. The author concludes with some observations on the desirability of performing this operation in such cases in preference to amputation of the foot.—*Dublin Medical Press.*